Technical Report

A Macroeconomic Convergence Program for SADC Phase I

SUBMITTED TO
USAID/RCSA and
SADC Secretariat—Trade, Industry, Finance, and Investment Directorate

UNDER CONTRACT NO.
PCE-I-00-98-00016-00,
Task Order 816

SUBMITTED BY
Nathan–MSI Group

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1. Introduction

The Southern African Development Community (SADC) promotes regional economic integration as a means to achieve development and economic growth, enhance the standard of living for all the peoples of Southern Africa, and support the socially disadvantaged. Economic research has concluded that a substantial degree of macroeconomic convergence is necessary for all the benefits of regional integration to be achieved.

To gain a better understanding of the concept and processes of macroeconomic convergence, SADC officials and member states held a workshop July 9–10, 2001. The workshop was organized by the Macroeconomic Subcommittee of the Finance and Investment sub-sector of the Trade, Industry, Finance and Investment Directorate of the SADC Secretariat in consultation with the Secretariat of the Committee of Central Bank Governors, with funding from USAID. A report from this workshop, and the draft Memorandum of Understanding (MOU) between the SADC Member States on Macroeconomic Stability and Convergence, were unanimously endorsed by the SADC Ministers of Finance and Investment on July 31, 2001, in Pretoria, South Africa.

MACROECONOMIC STABILITY INDICATORS

The SADC countries agreed that to achieve and maintain macroeconomic stability, they must agree on stability-oriented economic policies to be implemented by a regional unit. Member states have agreed that stability-oriented policies include:

- Restricting inflation to low and stable levels
- Maintaining a prudent fiscal stance that eschews large fiscal deficits, monetization of deficits, high public debt, and large financial imbalances in the economy
- Minimizing market distortions, both internal and international.[1]

Member states concur furthermore that macroeconomic convergence in SADC will be measured and monitored by the following indicators:

- Rate of inflation
- Ratio of the budget deficit to GDP
- Ratio of the net present value (NPV) of public or publicly guaranteed debt to GDP
- The balance and structure of the external account

[1] This does not mean that countries must have the same policies. Botswana and Malawi differ with respect to the importance of agriculture and mining to their economies, and their policies therefore will differ. Countries may converge with respect to macroeconomic performance yet diverge widely on national policies and convergence programs.

Member states have agreed to identify common guidelines for each of these indicators and other complementary indicators such as structural performance and financial conditions.

MACROECONOMIC CONVERGENCE PROGRAM

Convergence and SADC Policy

Convergence will support existing SADC policy and initiatives for regional economic integration and the sharing of the benefits of the SADC Free Trade Agreement (FTA). When economies diverge, trade and investment flows between them become thin and risky. When economies converge, risk is reduced and cross-border economic activities grow. Convergence will help integrate national SADC economies into a larger regional economy that has a bigger role in the global economy.

In addition, smaller economies need to be exporters as well as importers if they are to share fully in the benefits of the SADC FTA. This requires investment in production capacity, unlikely to be forthcoming in an unstable environment. When credible policies are in place, foreign and domestic investment will flow more freely. An MSM is a means for conferring policy credibility.
More generally, smaller states, particularly those with a history of economic volatility, stand to gain the most from a convergence program. Benefits include stability, credibility, and an increased share in the benefits of integration. Confidence, so important to investors, will be founded on credible policies generated from within the region.

Furthermore, each SADC member state agrees in the MOU to develop a macroeconomic convergence program for consideration by the Committee of Ministers for Finance and Investment.[2] The ministers set the following the objectives for the convergence programs:

- Achieve and entrench macroeconomic stability
- Engineer economic credibility
- Ensure that the benefits of regional integration are shared by all SADC member states
- Prepare for deeper integration.

Convergence is expected to be achieved through a regional program driven by a "dynamic, sustainable and credible regional economic unit," called a mutual stability mechanism (MSM). The 2001 convergence workshop identified the following basic facts that form the rationale for the MSM:

- Country size is an important factor in economic success. In recent decades, large countries have grown faster and become richer than small countries through economies of scale and diversification.
- Supranational economic groupings demonstrate that integration can substitute for size. Closer integration of trade and investment activities in SADC can help its members attain the scale advantages of being part of a larger economic unit.
- SADC does not at this point constitute an integrated economic entity.

[2] The processes whereby SADC countries can pursue a convergence agenda and the time involved are addressed in Phase II of the project.

- Integration means intensified cross-border trade and investment in the region. The prospective free trade area is the key initiative of SADC to attain greater integration. For the benefits of the free trade area to be widely shared, and for the free trade area to retain favor with electorates in the region, every SADC member, particularly smaller nations, must participate fully in integration, as producer and exporter as well as consumer and importer.
- To obtain investment the region must address economic stability and credibility. Potential producers do not view the region as economically stable, nor do they believe that the policy framework offers a reasonable guarantee of future stability. This negative view is what is referred to as a "lack of investor confidence." Providing a mechanism for establishing policy credibility inside the region is the core function of the convergence program.
- Convergence is required for further monetary integration. For regional currency reform, member economies must become more alike and more stable in inflation rates and fiscal and debt positions. The convergence program can play this preparatory role.
- SADC members are diverse in levels of economic stability and performance but want to move in the same direction.
- A successful regional program of convergence and stability will require a large degree of political commitment, sustained input, and the willingness of national economies to submit to scrutiny. The political commitment required will be commensurate with the benefits gained.

PURPOSE OF REPORT

This report is based on research commissioned by SADC and funded by USAID. It first defines the variables and indicators of stability and convergence. It assesses targeting strategies and designs the targets that the SADC economies must meet to further convergence.

The report then assesses the current state of convergence in SADC. We compare SADC to the J.P. Morgan Emerging Markets Bond Index, and each country to the SADC average. We also compare SADC and each SADC country to the target indicators.

The report describes the availability of data from SADC member states required for a convergence program. Finally, it proposes an institutional design for the SADC convergence program and the MSM.

This report covers the first phase of the technical assistance to be provided under this task order. In the second phase we will assess the capacity of SADC governments to design and implement national convergence plans and we will assess convergence programs and work with member states to ensure that their programs are consistent with their other commitments.

2. Definition of Variables and Interdependence of Targets

If macroeconomic convergence in SADC is to be measured and monitored according to the inflation rate, the budget deficit, public debt, and the balance and structure of the external account, how are these figures determined? For example, do we use headline or core inflation rates, and do deficits include or exclude transfers? And how do we calculate the interdependence of macroeconomic indicators? For example, budget deficits on the one hand are obviously linked to public debt and to a country's external position on the other hand.

This chapter defines the macroeconomic indicators that we used to measure convergence and discusses the interdependence of convergence targets. We look at which inflation index to target as well as the equivalence of price indices in the long term. We discuss targets for fiscal policy and distinguish between discretionary and induced changes in the budget. We explain some of the interdependencies between the fiscal deficit and the current account and external debt and briefly discuss the proximate causes of a current account deficit.

INFLATION

Advanced economies that have adopted inflation-targeting frameworks target different price indexes. Table 2-1 shows selected aspects of the inflation-targeting frameworks of seven developed countries.

The United Kingdom targets the increase of retail prices excluding mortgage interest payments, whereas Sweden targets the consumer price index (CPI) without any exemptions. As Yates (1995) points out, an important reason for monetary authorities to target a CPI with exemptions is the inappropriateness of responding to temporary shocks to the price level. Temporary shocks to the price level include shocks caused by short-term volatility in a particular series—for example seasonal food and energy—which, because they are short-term, do not prompt compensating adjustments elsewhere in the economy. Canada's inflation target includes just such an exemption.[3] Other examples of shocks are permanent changes in oil prices or shocks to the exchange rate, to which New Zealand's authorities would respond by allowing the target to be breached in the event of large shifts in the terms of trade.

[3] The rate of change in the CPI was chosen as the primary target because of its headline quality. To avoid responses to short-term fluctuations, the Bank of Canada also uses and reports core CPI (which excludes changes in the prices of food and energy), asserting that core CPI inflation and headline inflation move together in the medium-to-long term. For more details see Bernanke et al (1999, 119–120).

Table 2-1 Inflation-targeting Frameworks in Some Developed Economies

Country	Date of Adoption	Target Rate and Horizon	Price Index	Target Set By
Australia	January 1993	Underlying inflation of 2–3%, on average, over the cycle	CPI [a]	Reserve Bank of Australia and endorsed by the government in the Statement on the Conduct of Monetary Policy by the Treasurer and the Governor of the Reserve Bank
Canada	February 1991	1–3% Dec 93 to Feb 2001 (renewed in Feb 98)	CPI [b]	Minister of Finance and the Governor of the Bank of Canada
Finland [d]	February 1993	About 2% from 1995	CPI excluding indirect taxes, government subsidies, house prices, and mortgage interest payments	Target set by Bank of Finland with no explicit band
New Zealand	March 1990	Initially 3–5% (April 1990) 0–2% Dec 92 0–3% from Dec 96 [d]	CPI excluding interest cost components, indirect taxes and subsidies, government charges, and significant price effects from changes in the terms of trade	Policy Targets Agreement between the Minister of Finance and the Governor of the Reserve Bank of New Zealand
Spain [d]	November 1994	Less than 3% by 1997, 2% by 1998	CPI excluding mortgage interest	Bank of Spain
Sweden	January 1993	percent (with a tolerance band of $\pm$ 1%) in 1996 and beyond; 1–3% since 1995	CPI	Bank of Sweden
United Kingdom	October 1992	1–4% until June 1997 elections; subsequently 2.5%, plus or minus 1%	Retail price index excluding mortgage interest payments	Chancellor of the Exchequer

SOURCE: Masson et al. (1997), Table 2, updated as necessary, and Siklos (1999), Table 1. For more information on a group of 91 countries see Sterne (1999).

[a] In November 1997 changes were made to the CPI, which substantially reduced the problems in using the CPI to evaluate monetary policy. This relates to excluding the impact of interest rates on mortgage and other interest payments, indirect tax changes, and certain other volatile price items.

[b] Although the target is formally specified in terms of overall CPI, the Bank focuses on the CPI excluding food, energy, and the effect of indirect tax changes.

[c] The target represents an agreement between the Minister of Finance and the Governor of the Bank of Canada and is not codified in the Bank of Canada Act.

[d] The national banks of Finland and Spain are part of the Eurosystem, which includes the European Central Bank, and no longer have autonomous domestic monetary policies.

Moreover, authorities might not want to target permanent shocks to the price level.[4] Permanent shocks to the price level (but temporary shocks to the inflation rate) may also occur because of what is sometimes called a perverse response of inflation to policy changes. One of the reasons the U.K. target index excludes mortgage interest payments is that inflation measured by the all-inclusive retail price index rises for a year in response to an increase in short-term interest rates designed to reduce inflation in the medium term. Thus the short- and long-term effects of policy are opposite. Because the longer-term response is more important, it makes sense to ignore the short-term effect.[5] The same argument can be made for exemption from the temporary effect of increases in government taxes or subsidies. This in part motivates exemptions granted in Finland's inflation target.

Finally, the equilibrium price level may change because of changes in the technology of financial intermediation that affect velocity, or shocks that affect supply productivity shocks, or even oil price shocks that change the optimal mix of inputs, or changes to distortionary taxes.

Monetary policy should accommodate shocks,[6] and if monetary authorities are publicly committed to an inflation target, this policy should be officially approved. The Policy Targets Agreement in New Zealand is a case in point. There the inflation target is suspended in the event of natural disasters. The agreement states that the target can be renegotiated if a crisis such as a natural disaster is expected to affect the price level significantly.[7]

If a central bank makes CPI exclusions, the excluded items should not show up in the long-term inflation rate. Yates tests whether targeting a particular U.K. price index makes a difference in the long term—whether different exclusions make the indices diverge in a permanent and predictable way. Yates's findings are clear: Movements in mortgage interest payments, indirect taxes, and food and energy prices around the aggregate price level are short term and can be excluded without affecting the long-term performance of the target.[8]

In choosing an index we assumed that monetary policy is geared toward long-term objectives and accommodates temporary shocks to the price level. We therefore decided to target the CPI with exemptions—a form of core inflation.

BUDGET DEFICIT

How do we define a variable that measures a budget deficit? First, we must take into account that budget deficits exhibit cyclical movements. As an economy picks up steam, its fiscal deficit as a

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[4] Yates, p. 151.

[5] Responding to short-term effects generates instrument instability. Targeting the full index requires wide swings in short-term rates—the policy instrument—which in its turn would cause the target to be overshot.

[6] Yates, p. 152.

[7] See Policy Targets Agreement, Reserve Bank of New Zealand (1999), p. 1 for a discussion of "unusual events."

[8] Yates, pp. 152–157. More sophisticated approaches can be used to measure the underlying inflation trend than exclusion-based measures. For example, the trimmed-mean method is a statistical measure of core inflation that removes (or reduces the weight of) components in the full index with extreme price changes according to the premise that extreme price changes are not indicative of the trend component of inflation. For examples of this approach for Australia and Japan, see Kearns (1998) and Shiratsuka (1997) respectively.

percentage of GDP decreases.[9] If a country is hit by a recession, its budget deficit as a percentage of GDP increases. He we examine the cyclically adjusted deficit, sometimes called the structural deficit.

A change in the deficit is a result of either a discretionary change in fiscal policy or an induced change in fiscal policy. Induced changes in fiscal policy can be defined as changes in inflation, interest rates, and output growth during the previous year (or over the previous *x*-year average). Determining a benchmark for budget deficits (e.g., as a certain percentage of GDP) therefore requires projections about inflation, interest rates, output growth, and donor transfers (including aid). We define d the (primary) budget deficit as a share of GDP as

$$d = \frac{G - T}{Y}, \tag{2.1}$$

The deficit can be re-written as

$$d = d_{t-1} + \Delta d \, . \tag{2.2}$$

The change in the deficit Δd can be written to take into account discretionary changes (Δd_t^d) and induced changes (Δd_t^i) in fiscal policy:

$$\Delta d = \Delta d_t^d + \Delta d_t^i \, . \tag{2.3}$$

Now suppose a member state sets a target for fiscal deficits at d^*, or

$$d^* = d_{t-1} + \Delta d_t^d + \Delta d_t^i \, . \tag{2.4}$$

From equation (2.4) it follows that given the initial deficit and the induced change in the deficit, the required (targeted) change in the discretionary deficit is

$$\Delta d_t^{d*} = d^* - d_{t-1} - \Delta d_t^i \, . \tag{2.5}$$

Equation (2.5) shows that projections of induced changes in the budget, GDP growth, and other variables such as international aid flows and transfers are necessary to determine targets for deficits. Thus, given a target for the headline deficit in 2006 and the deficit in 2000, we can determine the fiscal policy changes needed to align a member state's fiscal performance with the target.[10]

The sustainability of domestic debt is determined by the interaction of the variables expenditure, taxation, interest rates, growth rates, and the initial level of debt. Sustainability will be discussed further in the context of external debt.

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[9] This may be due to an increase in tax receipts and an increase in GDP.

[10] Member states with very high initial debt could be allowed more time to bring their debt levels in line with the target. Thus, such a member state has more flexibility. Arguably the higher the initial debt level, the more time a country needs to sort out its problems and institute policy reform. Thus, the need for leeway or flexibility could be positively correlated with the initial debt level.

EXTERNAL ACCOUNT

In attempting to set targets for the balance and structure of the external account, we realize that these variables are endogenous, that is, that the macroeconomic variables are interdependent. Budget deficits are linked to public debt as well as to the external position. Thus, the associated target values are interdependent.

The increase in a country's net foreign indebtedness is equal to the current account deficit that has to be financed by borrowing from abroad. We start with the consolidated (flow) budget constraint of a typical open economy:

$$Y = C + (G - T) + I + (X - M) + (R_r - R_p) \tag{2.6}$$

where R_r denotes interest received from abroad, R_p is interest paid abroad, Y is GDP, C is consumption, G is government expenditure, T is taxes, X is exports, I is investment, and M stands for imports.

The interest paid is assumed to be the product of the outstanding amount of debt (in US$) and the relevant interest rate:

$$R_p = (i_p^*.D^*).E \tag{2.7}$$

where E is the nominal exchange rate (units of domestic currency per unit of foreign currency). Similarly, the amount of interest received is the product of the outstanding amount of foreign assets (in US$) multiplied by the relevant dollar interest rate:

$$R_r = (i_r^*.F^*)E\,. \tag{2.8}$$

Defining R_f as $R_r - R_p$ (the balance of interest received and paid—the net interest received), we get:

$$Y = C + (G - T) + I + (X - M) + R_f \tag{2.9}$$

Subtracting C from both sides of (2.9) and taking into account that savings, S, by definition equals the difference between output and consumption , equation (2.9) can be rearranged to yield

$$(S - I) + (T - G) = (X - M) + R_f\,, \tag{2.10}$$

The current account of the balance of payments—the right side of (2.10)—can be defined as the sum of the trade account and net interest received; equation (2.10) therefore has the alternative formulation

$$CA = (X - M) + R_f = (S - I) + (T - G),$$

where CA is the current account.

So the current account—the trade account $X - M$ plus net interest received—is equal to the sum of net private sector and public sector saving. Dividing this expression by GDP (Y), we get:

$$\frac{CA}{Y} = \frac{(S - I)}{Y} + \frac{(T - G)}{Y}. \tag{2.11}$$

INTERDEPENDENCE OF TARGETS

According to equation (2.11), with a private sector saving surplus, a target for the fiscal deficit (as a fraction of GDP), $\left[\frac{(G-T)}{Y}\right]^*$, implies a target for the current account deficit. In the case of a zero private sector savings surplus, these targets are identical, and a 3 percent target for the fiscal deficit translates into the same target for the current account. Table 2-2 illustrates a few possibilities.

Table 2-2. Interdependencies between Deficit and Current Account Targets (Perunage)

(1)	$\frac{(S-I)}{Y}$	0	-0.06	-0.06
(2)	$\left[\frac{(G-T)}{Y}\right]^*$	-0.03	-0.03	0.03
(3) = (1) + (2)	$\left[\frac{CA}{Y}\right]^*$	-0.03	-0.09	-0.03

This target for the current account (implied by a certain private sector savings surplus and a fiscal deficit target) is then given by:

$$\left[\frac{CA}{Y}\right]^* = \left[\frac{(X-M)+R_F}{Y}\right]^*. \qquad (2.12)$$

Equation 2.12 shows that a certain current account target can be achieved with various combinations of the trade balance and net interest received. Table 2-3 illustrates a few possibilities in perunages.[11]

Table 2-3. Current Account, Trade, and Interest Received (Perunage)

(1)	$\frac{(X-M)}{Y}$	-0.030	-0.030	0.015
(2)	$\frac{R_f}{Y}$	0	-0.060	0.015
(3) = (1) + (2)	$\left[\frac{CA}{Y}\right]^*$	-0.030	-0.090	0.030

[11] A perunage represents a ratio, like percentage, but means *per one.* Perunages can be converted into percentages by multiplying by 100.

Growth of Foreign Debt

From equation (2.10) it also follows that if net foreign indebtedness is not to increase, the trade surplus must be large enough to finance interest payments abroad—which requires positive net domestic saving (i.e., public plus private).

Anything that causes I to rise relative to S, G relative to T, M relative to X, or R_f to increase, can cause foreign indebtedness to increase.

According to Hallwood and MacDonald (2000), in the 10 years leading to the debt crisis of 1982, all these factors were unfavorable for the developing countries as a group, certainly for those depending on oil imports. Both external and internal factors were responsible. The internal factors were either self-inflicted—especially the failure to raise domestic savings rates and constrain budget deficits—or resulted from a failure to adjust to external shocks. The proximate causes of foreign indebtedness are summarized below:

Internal Factors	*External Factors*
S	M
T, G	X, R_f

Debt Service Ratio

Although no measure of a country's debt burden can show the optimal level of external debt, the debt service ratio (DSR)—the ratio of debt service to export earnings—is useful. When it is high (over 25 percent) it indicates that a country is vulnerable to adverse changes in its foreign trade or international interest rates.

To maintain consistency with our preceding analysis, we rewrite equation (2.10)—which we assume to be in domestic currency—in US$. To express it in US$, we simply divide by E, where E is the nominal exchange rate (units of domestic currency per US$). This yields:

$$\frac{(X-M)}{E}+\frac{R_f}{E}=\frac{(S-I)}{E}+\frac{(T-G)}{E}=\frac{CA}{E}\ . \tag{2.13}$$

The DSR can be written in US$ terms as

$$DSR=\frac{DS}{(X/E)}, \tag{2.14}$$

where DS is the debt service and X/E is export earnings, both expressed in US$. It follows that:

$$\frac{dDSR}{DSR}=\frac{dDS}{DS}-\frac{d(X/E)}{X/E}. \tag{2.15}$$

The DSR increases if debt service grows faster than export revenues. The annual absolute increase in dollar debt service (dDS) is described by

$$d(DS)=\frac{i_p^*(M-X)}{E}+D^*d(i_p^*)+dA^*. \tag{2.16}$$

This depends on four factors: this year's trade deficit (with a positive sign), the interest paid on this increment of outstanding foreign debt, the change in the interest rate paid on debt outstanding at the beginning of the year(if any), and the change in repayments of principal (known as amortization).

Here $\frac{i_p^*(M-X)}{E}$ is the interest paid on the current year's trade deficit; $D^* d\left(i_p^*\right)$ is the change in the amount of interest paid on debt outstanding at the beginning of the year ($d\left(i_p^*\right)$ is the change in the rate of interest) and dA^* is the change in the annual repayment (or amortization) of principal. Dividing equation (2.16) by DS and substituting into equation (2.15) yields

$$\frac{dDSR}{DSR} = \frac{i_p^*(M-X)}{E.DS} + \frac{D^* d\left(i_p^*\right)}{DS} + \frac{dA^*}{DS} - \frac{d\left(X/E\right)}{X/E}. \tag{2.17}$$

Thus the DSR rises if the trade deficit, the interest rate or annual amortization rises, or if the export growth rate falls.

Annual amortization changes with the repayment schedule: If the average maturity of debt lengthens, other things being equal, annual amortization falls. Most debt-rescheduling agreements push current amortization into the future, thereby reducing the present level of A* (dA^*/dDS is negative). But the success of that tactic depends on an ability to reduce the trade deficit or increase the rate of export growth. Recurrent failure means that sooner or later a second or third rescheduling will be needed.

Debt and Economic Growth

One hope for developing countries in the context of indebtedness is that they can grow their way out of debt. Faster economic growth raises debt-service capacity and reduces the ratio of debt to income. In fact, even if a country can achieve a balanced trade account, the rate of growth of nominal income must be at least as great as the nominal interest paid on debt outstanding if the debt-to-national income ratio, d, is not to rise. That is,

$$d = \frac{D^*}{Y/E}, \tag{2.18}$$

where D* is debt outstanding (measured in US$) and Y is nominal income, which is converted at the exchange rate, E, into foreign currency.

From equation (2.14) it follows that the change in the debt-to-national income ratio is:

$$dd = d\left(\frac{D^*}{Y/E}\right) = \frac{dD^*(Y/E) - d(Y/E)D^*}{(Y/E)^2} = \frac{dD^*}{(Y/E)} - \frac{D^*}{(Y/E)}\left[\dot{Y} - \dot{E}\right], \tag{2.19}$$

where $\left[\dot{Y} - \dot{E}\right]$ is the rate of income growth measured in US$.

Dividing nominator and denominator of the first term on the right by D^*, we get

$$dd = \frac{D^*}{(Y/E)}\left[\dot{D}^* - (\dot{Y} - \dot{E})\right]. \tag{2.20}$$

Thus, the debt-to-income ratio does not rise if debt grows as fast as the rate of income (measured in US$).

When the change in debt is driven by the current account deficit, $\frac{(M-X)}{E} - \frac{R_f}{E}$, the proportionate growth of debt $\dot{D}^*$ is equal to:

$$\frac{dD^*}{D^*} = -\frac{CA/E}{D^*} = \frac{(M-X)/E}{D^*} - \frac{R_f/E}{D^*}. \tag{2.21}$$

From equations (2.7) and (2.8), it follows that:

$$\frac{R_f}{E} = \frac{R_r - R_p}{E} = \frac{\left(i_r^*.F^*\right)E - \left(i_p^*.D^*\right)E}{E} = \left(i_r^*.F^*\right) - \left(i_p^*.D^*\right). \tag{2.22}$$

If we abstract from interest received (i.e., assume that $i_r^*.F^* = 0$), we have:

$$\frac{R_f/E}{D^*} = \frac{-\left(i_p^*.D^*\right)}{D^*} = -i_p^*. \tag{2.23}$$

Substituting (2.23) into (2.22) yields:

$$\frac{dD^*}{D^*} = -\frac{CA/E}{D^*} = \frac{(M-X)/E}{D^*} + i_p^* \tag{2.24}$$

Combining (2.20) with (2.16) we get:

$$dd = \frac{D^*}{(Y/E)}\left[\frac{(M-X)/E}{D^*} + i_p^* - (\dot{Y} - \dot{E})\right] \tag{2.25}$$

If the debt-to-income ratio is to remain constant at some target level (perhaps the maximum level considered by international banks to be consistent with solvency) and the trade account is brought into balance we can write:

$$\dot{Y} - \dot{E} = i_p^*, \tag{2.26}$$

which says that the growth rate of nominal income measured in US$ (the left side) must grow at a rate equal to the interest rate paid on foreign loans. If we assume that the nominal exchange rate is anchored by inflation differentials (i.e., if purchasing power parity holds in relative terms), then the rate of real economic growth must equal the foreign real rate of interest.[12]

[12] This follows from letting $\dot{E} = \dot{P} - \dot{P}^*$ and rearranging (3.26).

Interdependencies between Debt and Current Account Targets

Equation (2.25) can be rewritten as:

$$dd = \left[\left\{ \frac{(M - X) + R_p}{Y} \right\} - \frac{D^*}{(Y/E)} (\dot{Y} - \dot{E}) \right] \tag{2.27}$$

where $R_p = D^* i_p^* E$, and $\frac{(M - X) + R_p}{Y}$ is the current account deficit as a fraction (perunage) of GDP.

We see that debt and the current account share important interdependencies. For example, targeting the current account has certain implications for the debt-to-national income ratio. Targeting the current account in the sense of limiting the current account deficit (to 100*x percent of GDP for example), all other things being equal, implies that the debt-to-national income ratio is given by:

$$dd = \left[x - \frac{D^* E}{Y} (\dot{Y} - \dot{E}) \right]. \tag{2.28}$$

Table 2-4 illustrates some scenarios for the debt-to-national income ratio. The initial share of (foreign currency–denominated) debt to GDP is set at 0.4.[13]

Table 2-4. Interdependencies between Debt and Current Account Targets

dd	x	$\frac{D^* E}{Y}$	$(\dot{Y} - \dot{E})$
8	6	0.4	-5.0
7	6	0.4	-2.5
6	6	0.4	0
5	6	0.4	2.5
4	6	0.4	5.0

We set the current account deficit target at 6 percent of GDP (see Chapter 6). With this target and the initial debt situation, the rate of increase of the debt-to-national income ratio depends on the real rate of growth $(\dot{Y} - \dot{E})$.

It is clear that high rates of growth are favorable for the debt-to-income ratio and recessions have deleterious effects on indebtedness. In general, the debt-to-income ratio will rise if

$$(\dot{Y} - \dot{E}) < \frac{Y}{D^* E} x. \tag{2.29}$$

So, whether or not a given (exogenous) current account target is feasible depends on real growth rates. Another way to think about interdependencies is as follows. Given the assumptions on economic growth (±5 percent), and the initial levels of debt to GDP, which current account targets

[13] In 2000, the ratio of the present value of debt for SADC as a whole stood at 41.19 percent.

are consistent with a stable (unchanging) debt-to-national income ratio? Perhaps the targets should be set at the maximum level considered by international banks to be consistent with solvency. Some tentative answers are provided in Table 2-5.

Table 2-5. Economic Growth, Sustainable Debt, and Implied Current Account Targets

dd	x	$\frac{D^{*}E}{Y}$	$(\dot{Y}-\dot{E})$
0	-2	0.4	-5.0
0	-1	0.4	-2.5
0	0	0.4	0
0	1	0.4	2.5
0	2	0.4	5.0

If the real growth rate varies between –5 and +5 percent, for the debt-to-national income ratio not to increase, the current account deficit must move between a sizeable surplus (+2 percent of GDP) to a deficit of the same size. So in general, given constraints (targets) on international debt, current account targets cannot be set independently of growth projections (forecasts).

3. Snapshot of Macroeconomic Convergence in SADC

To have a preliminary understanding of macroeconomic performance and determine the state of convergence in SADC, we used the following indicators:

- Rate of inflation according to the consumer prix index (CPI)
- Ratio of the budget deficit to gross domestic product (GDP)
- Ratio of the net present value (NPV) of public or publicly guaranteed debt to gross national income (GNI)[14]
- Balance as ratio of GDP and structure of the current account.

SADC

Table 3-1 shows SADC countries' contributions to total SADC GDP in 2000. We used these weighted averages to make comparisons in the analyses that follow.

Table 3-1. Weighted Shares of SADC Member States in SADC GDP in 2000

Country	GDP	Share in SADC GDP
Angola	8.86	4.87%
Botswana	5.03	2.77%
Congo, Dem. Rep.	4.48	2.46%
Lesotho	0.87	0.48%
Malawi	1.67	0.92%
Mauritius	4.40	2.42%
Mozambique	3.75	2.06%
Namibia	3.44	1.89%
Seychelles	0.58	0.32%
South Africa	128.01	70.40%
Swaziland	1.40	0.77%
Tanzania	9.03	4.96%
Zambia	3.24	1.78%
Zimbabwe	7.06	3.88%
Total	181.82	99.98% *

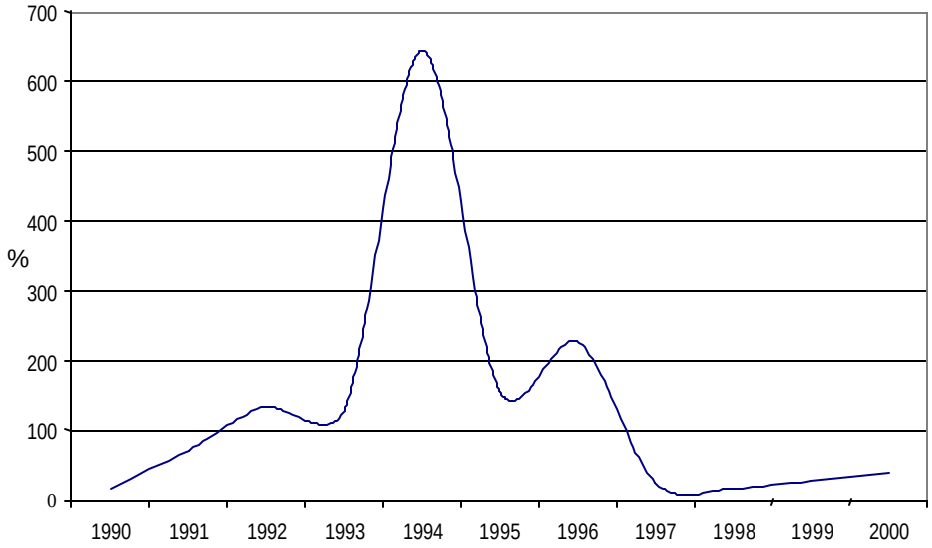
*Does not sum to 100 because of rounding.

[14] We used GNI instead of GDP to perform our analysis of public debt because the World Bank data on which our analysis relied are expressed in terms of GNI.

Inflation

Figure 3-1 plots the CPI inflation rate for the period 1990 to 2000 for SADC as a whole using the weighted average. Average inflation for SADC for the period was high and volatile, exceeding 100 percent for the 5 consecutive years from 1992 to 1996. Inflation ranged from 644 percent in 1994 to 15.7 percent in 1998. Inflation has stabilized since 1997, reaching 37.4 percent in 2000.

Figure 3-1. Inflation—SADC



The hyperinflation in SADC, however, was due to rates in just two countries, the Democratic Republic of Congo and Angola. Both of these countries were involved in devastating civil wars during the period. The resulting hyperinflation—more than 4,000 percent in Angola and 20,000 percent in the Democratic Republic of Congo—has seriously distorted the SADC average. Although these countries' economies have a combined weight of only 7.34 percent, from 1992 to 1995 they were responsible for more than 75 percent of SADC inflation. If these countries are excluded, average inflation in SADC would have been stable. Conditions in these countries have improved recently; however, inflation in Angola and the Democratic Republic of Congo still made up about 79 percent of SADC inflation in 2000.

Figure 3-2 illustrates the average inflation rate for SADC excluding the Democratic Republic of Congo. The overall picture is similar, although the scale is smaller than in Figure 3-1. Inflation for SADC, excluding Democratic Republic of Congo, still exceeded 200 percent in 1996. Figure 3-3 illustrates the average inflation rate for SADC excluding both the Democratic Republic of Congo and Angola.

Figure 3-2. Inflation—SADC Excluding Democratic Republic of Congo

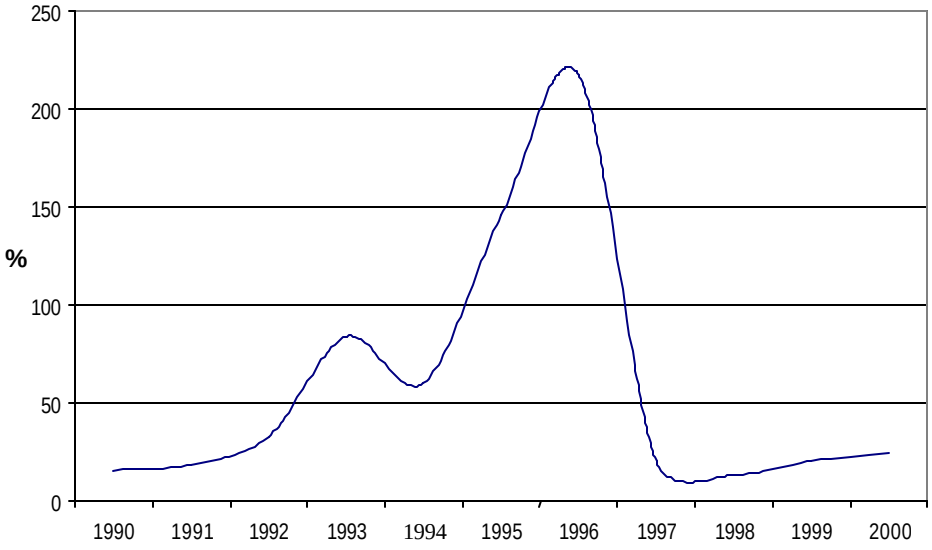
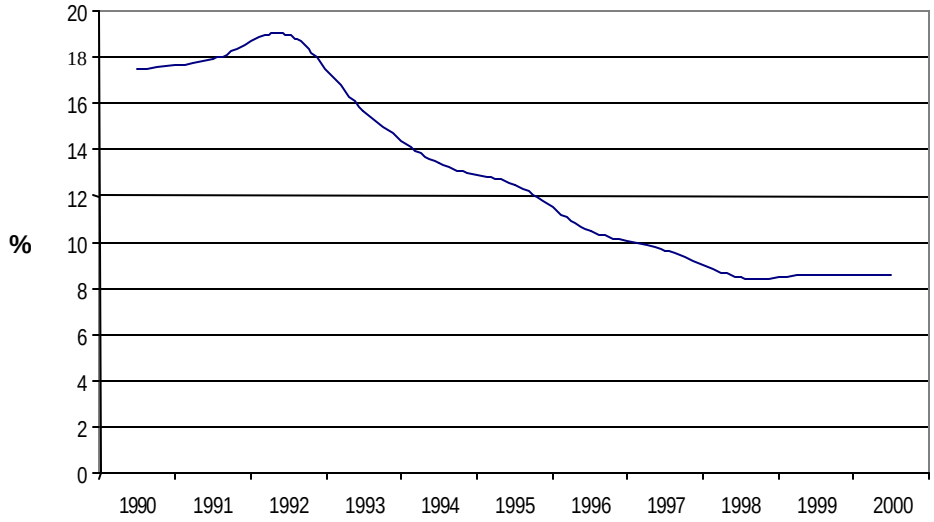


Figure 3-3. Inflation—SADC Excluding Democratic Republic of Congo and Angola



When both Angola and Democratic Republic of Congo are removed from the group, a different picture emerges. SADC's average inflation without these countries was much lower and much less volatile than with the two countries included, and most importantly, declined steadily. Between 1992 and 1998, it fell from 19 percent to 8.5 percent, stabilizing at this level until the end of the sample period. This is heartening because it shows that, except in the Democratic Republic of Congo and Angola, inflation should not be a serious impediment to macroeconomic stability for SADC. However, it remains to be seen whether inflation is a problem in individual SADC countries.

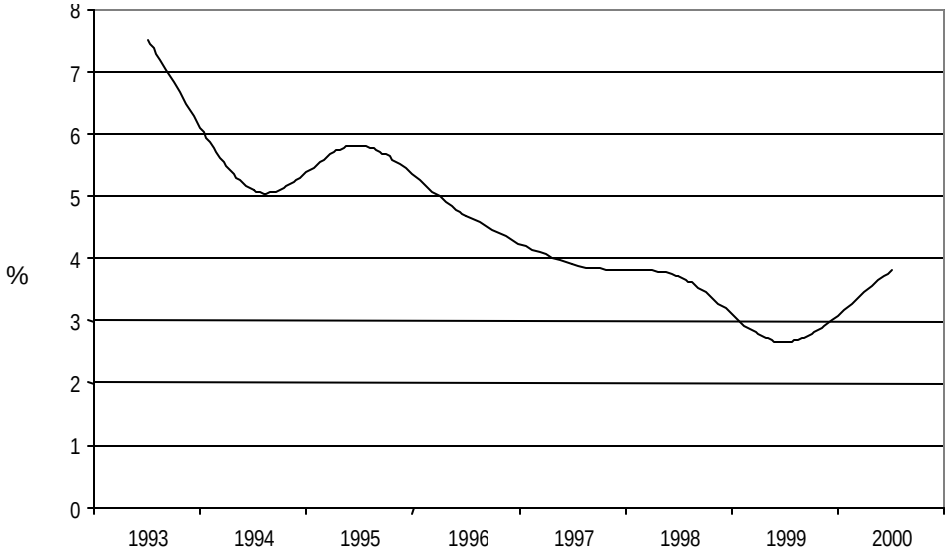
Budget Deficit

Finding data for budget deficits for a 1990–2000 sample proved difficult. We therefore examined the period 1993 through 2000. Furthermore, in several SADC countries, the issue of arrears arises: Zambia has carried as much as 15 percent of projected government expenditure from one year the next. Tanzania, Malawi, and Zimbabwe may be in similar circumstances. The difficulty of taking arrears into account makes budget deficit figures less accurate than other measures. [15]

The data used for deficit-to-GDP ratios come primarily from SADC, which does not exclude official grants to governments. Some argue that grants should be excluded in determining convergence because they do not constitute regular income. IMF staff country reports exclude grants; we therefore tried to use data from these reports when available. Appendix A specifies the sources of the data used.

The effect of individual SADC countries on the budget deficit average is less pronounced than for interest rates. We therefore did not use subgroupings of SADC countries to analyze budget deficits in the region. Figure 3-4 shows the budget deficit of SADC as a whole as a percentage of GDP. The figure illustrates that the SADC budget deficit declined, from 7.5 percent in 1993 to 3.66 percent in 1999, before climbing again to 3.8 percent in 2000.

Figure 3-4. Budget Deficit—SADC (as % of GDP)



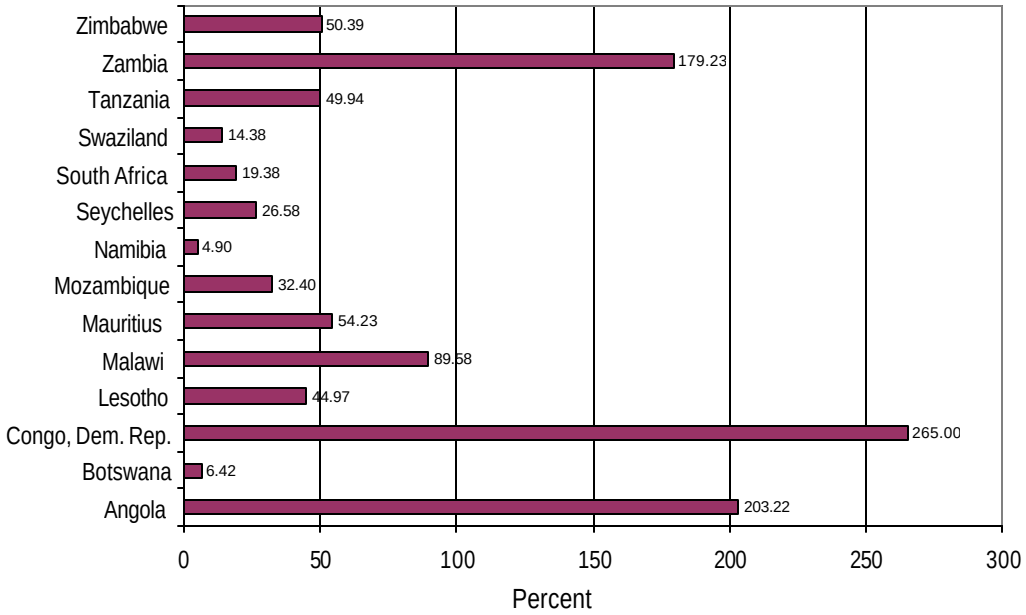
Debt

Debt is defined as the net present value of debt—the sum of short–term external debt plus the discounted sum of total debt service payments due on public, publicly guaranteed, and private non-guaranteed long-term debt over the life of existing loans—as a percentage of GNI. The aggregate

[15] An alternative measurement may be the growth rate of the money supply (or domestic credit) because in chronic-deficit countries, the money supply often indicates the stress an economy is undergoing more accurately than the budget deficit does.

indebtedness of SADC stood at 41.19 percent of GNI in 2000. This number is an average of widely different situations in SADC countries. [16] Figure 3-5 illustrates this divergence.[17]

Figure 3-5. Debt of SADC Countries (as % of GNI in 2000)



Democratic Republic of Congo, Angola, Zambia, and Malawi all have very high debt-to-GNI ratios. SADC countries that are not too highly indebted, according to the 40 percent benchmark used by the World Bank, are Swaziland, South Africa, Seychelles, Namibia, Mozambique, and Botswana. The other SADC countries—Zimbabwe, Tanzania, Mauritius, and Lesotho—lie between these extremes.

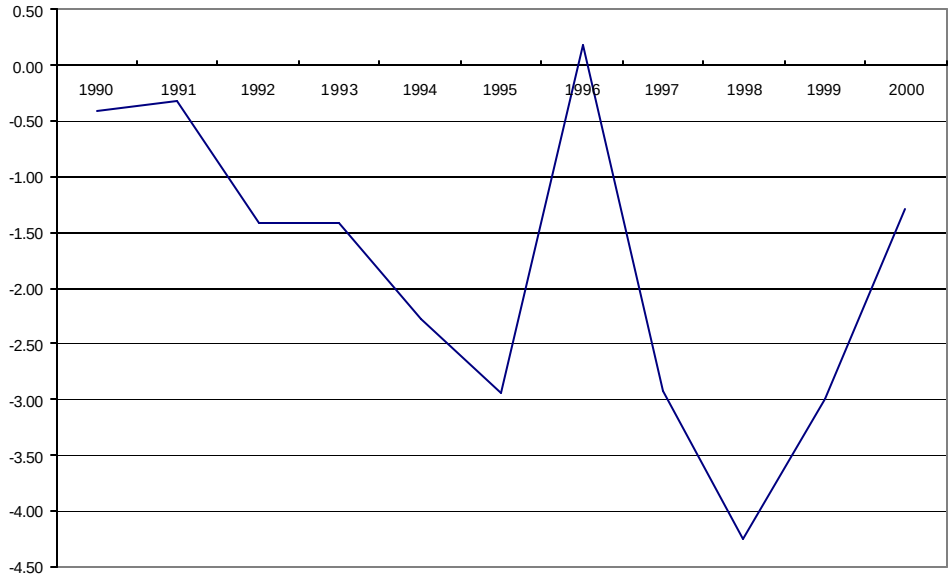
Current Account

The current account indicator refers to the balance of payments—the sum of net exports of goods, services, net income, and net current transfers—expressed as a percentage of GDP. Figure 3-6 plots the weighted average of the current account for SADC as a whole.

[16] Not all SADC countries can attain desirable debt ratios without outside assistance. Some countries—Botswana, South Africa, Namibia, and Mauritius—have the capacity to service their debt, while others, such as Zambia and Tanzania, cannot service their debt without extraordinary support from the donor community. Discussions about debt should take this into consideration.

[17] This figure also could mention net debt. For example, because of Botswana's large holding of financial assets, its debt level is economically less important. So is Namibia's and perhaps South Africa's. Including in the analysis countries such as Zambia that have few assets and large debt makes sense. Arguably, including Botswana, which has large net assets, makes less sense.

Figure 3-6. SADC Current Account (as % of GDP)



BENCHMARK SELECTION

To establish convergence benchmarks external to SADC, we compared SADC inflation, public debt, and current account to the average rates of the J.P. Morgan Emerging Markets Bond Index (EMBI). The EMBI covers a group of 27 emerging market countries; it was chosen because the countries in this index are, in economic performance terms, halfway between developed economies and developing economies. We used aggregated, weighted country data to determine the average rates of macroeconomic indicators for EMBI[18].

Because of a lack of reliable fiscal data for some countries in the EMBI, for budget deficit we selected the benchmark that the Maastricht Treaty on European Union specified for European countries to join the European Union. This budget deficit benchmark is 3 percent of GDP.

SNAPSHOT COMPARISONS BETWEEN SADC AND BENCHMARKS

Inflation

Figures 3-7, 3-8, and 3-9 show SADC inflation compared to the EMBI average. Notice the difference in scale in the three figures. The dotted horizontal line indicates the 2000 EMBI average inflation rate of 7.65 percent. Figure 3-7 shows SADC inflation compared to EMBI inflation. Figure 3-8 shows the inflation rate in SADC excluding Democratic Republic of Congo compared to the EMBI benchmark. No inflation convergence can be observed. When Democratic Republic of Congo and Angola are

[18] Data can be found in the data tables in Appendix A.

excluded from the SADC group, as in Figure 3.9, convergence can be seen, although SADC inflation is still higher than the EMBI inflation rate.

Figure 3-7. Inflation—SADC Compared to EMBI

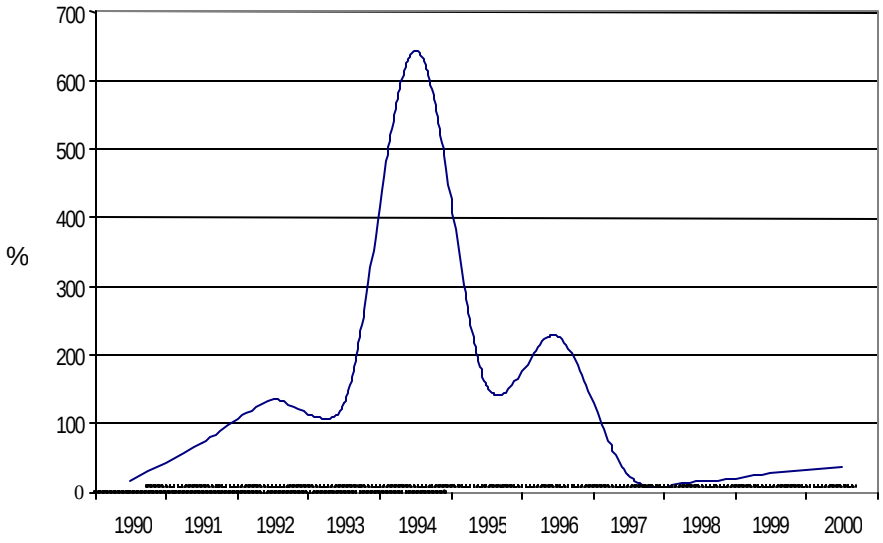


Figure 3-8. Inflation—SADC Excluding Dem. Rep. of Congo Compared to EMBI

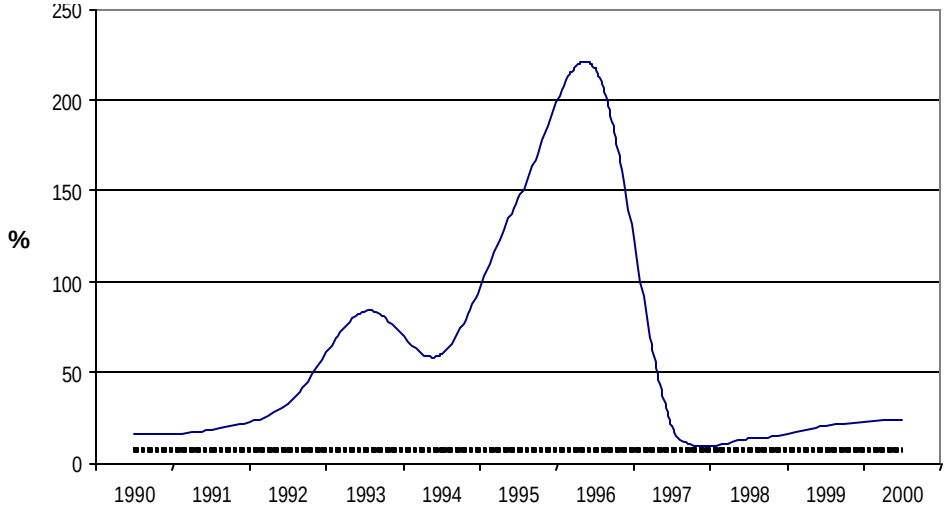
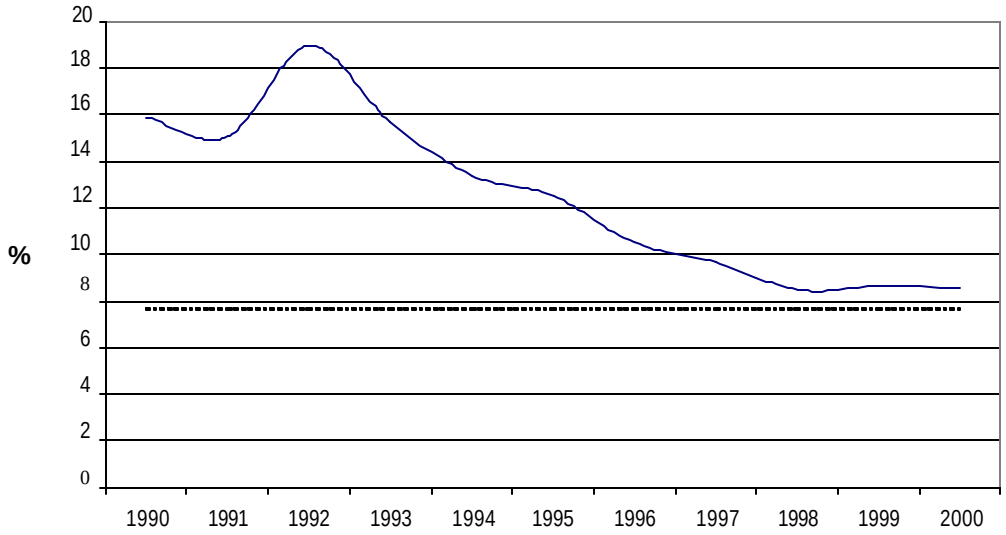


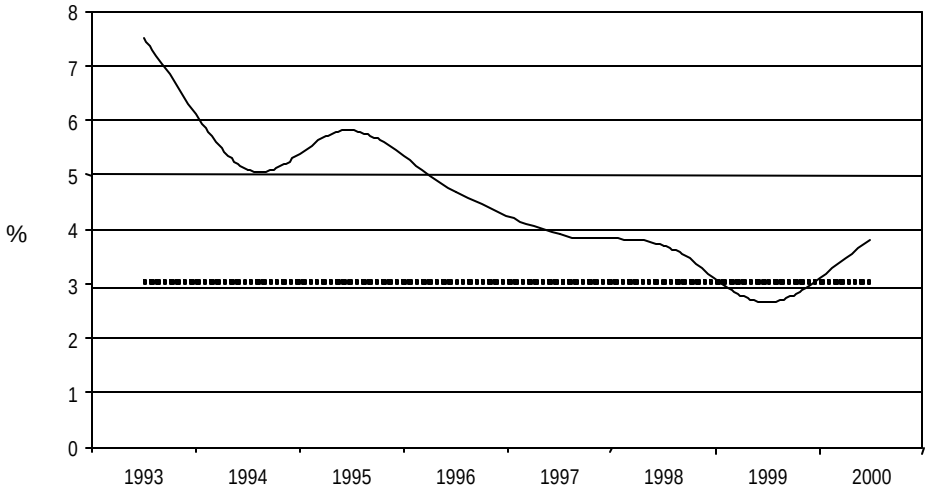
Figure 3-9. Inflation—SADC Excluding Dem. Rep. of Congo and Angola Compared to EMBI



Budget Deficit

Figure 3-10 shows the SADC budget deficit-to-GDP ratio compared to the 3 percent Maastricht benchmark. The dotted horizontal line represents the Maastricht benchmark.

Figure 3-10. Budget Deficit—SADC Compared to Maastricht Benchmark



The figure shows some convergence to the benchmark. SADC as a whole meets the benchmark in 1999, but not in 2000. SADC's fiscal performance is good relative to the benchmark.

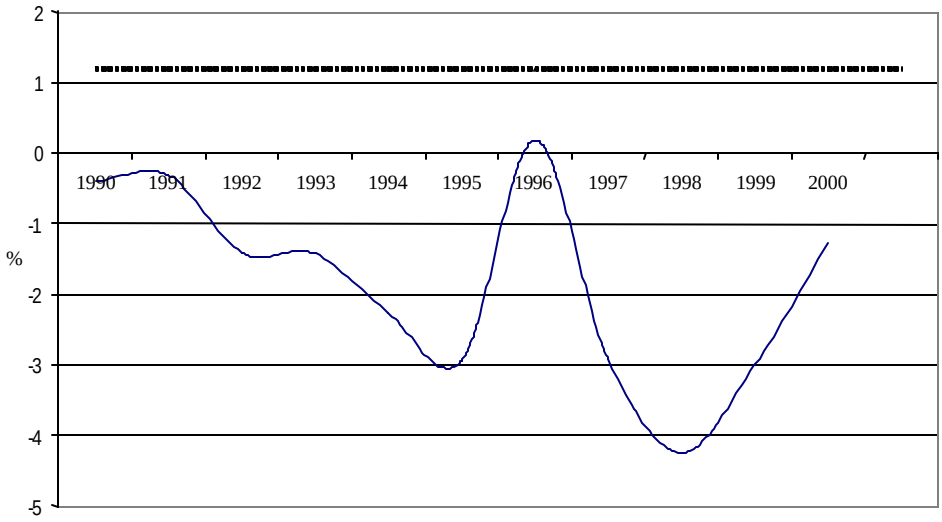
Debt

The NPV of debt as a percentage of GNI stood at 41.19 percent for SADC as a whole in 2000. The EMBI average was 36.01 percent. Thus, SADC as a block is not out of line with other emerging markets.

Current Account

The current account figures are plotted in Figure 3-11. The dotted horizontal line indicates the EMBI 2000 current account—a surplus of 1.2 percent of GDP.

Figure 3-11. Current Account—SADC Compared to EMBI



The figure shows some convergence between SADC and EMBI with respect to the current account between 1990 and 1996 and again between 1998 and 2000. As mentioned earlier, the SADC current account deficit is highly cyclical.

4. Detailed Assessment of Convergence in SADC

CONVERGENCE MEASURES

To assess the convergence of macroeconomic indicators more accurately than in the previous chapter, we defined equations to measure convergence. We attempted to determine convergence measures that were as simple and uncontroversial as possible. More sophisticated measures (such as quadratic and mean absolute deviation) are potentially interesting, but using them would come at the expense of simplicity and transparency.

Measure for SADC as a Whole Compared to Benchmarks in 2000

First we determined the deviation between the average macroeconomic indicator for SADC and the corresponding convergence benchmark in 2000 measured in percentage points:

$$DIV1A = X^{A}_{2000} - C_{2000}, \tag{4.1}$$

where

$$X^{A} \equiv \sum_{j=1}^{14} \left(\frac{GDP_j}{\sum_{j=1}^{14} GDP_j} \right) X_j$$

and C_{2000} is the convergence benchmark for a macroeconomic indicator in 2000.

The difference between the average SADC macroeconomic indicator (inflation or budget deficit) and the convergence benchmark in equation (1) is the same as the regional aggregate of the differences between individual countries' macroeconomic indicators and the convergence benchmark. This is identical to:

$$\sum_{j=1}^{14} \left(\frac{GDP_j}{\sum_{j=1}^{14} GDP_j} \right) \left(X_j - C_{2000} \right).$$

If the result of a measure is a positive number, the SADC inflation rate or budget deficit is higher than the benchmark, which means that SADC is performing worse than the benchmark. A negative

number indicates that SADC's macroeconomic indicator is lower than the benchmark and SADC is outperforming the benchmark.[19]

Measure for SADC as a Whole over a Range of Years Compared to Benchmarks

We also measure average SADC economic performance over a longer period (for inflation 1990–2000 and for budget deficit 1993–2000), comparing macroeconomic variables over the period with the 2000 convergence benchmark:

$$DIV2A = \frac{1}{T}\sum_{i=1}^{T}(X_i^A - C_{2000}) \tag{4.2}$$

where $i = 1,2..T$.[20]

Measure for SADC Countries Compared to SADC as a Whole in 2000

We also assess individual developments within SADC—how each country's macroeconomic performance compares to the performance of SADC as a whole:

$$RELDIV1 = X_{2000} - X_{2000}^A. \tag{4.3}$$

This measure is similar to equation (4.1), but here we compare individual countries' inflation rates and budget deficits to the regional SADC levels in 2000.

Measure for SADC Countries Compared to SADC as a Whole over a Range of Years

The fourth convergence measure is similar to the second one, which determines economic performance over a longer period:

$$RELDIV2 = \frac{1}{T}\sum_{i=1}^{T}\left(X_i - X_i^A\right) \tag{4.4}$$

Where $i = 1,2..T$.

The differences between the measures for 2000 and the measures for the longer period will be enlightening because we can determine if a country's performance in 2000 is representative of its performance over the longer period.

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[19] Measures such as this one have a meaning only in the context of movement towards or away from a goal. For example, a rising budget deficit in the context of an economic downturn (such as Botswana experienced in 1999) or a rising inflation rate in the context of an external supply shock is not necessarily bad. In both cases, the indicators show that the system is adjusting. What would be inappropriate in the macroeconomic sense is no upward pressure on the deficit or prices under the circumstances described. We discuss cyclically adjusted deficits and the inflation index to target in Chapter 3.

[20] T is 8 for deficits (1993–2000) and 11 for inflation and current account deficits (both 1990–2000).

Measure for SADC Countries in 2000 Compared to Benchmark

We also determine the deviation between the relevant country variable and the relevant convergence benchmark in 2000:

$$DIV1 = X_{2000} - C_{2000} = RELDIV1 + DIV1A \tag{4.5}$$

That is, the position of each SADC country in relation to the benchmark can be seen as the sum of its individual positions in the SADC economy and the position of SADC as a block compared to the benchmark. It is the sum of equations (4.1) and (4.3).

Measure for SADC Countries over a Range of Years Compared to Benchmark

We construct another measure to determine economic performance over a longer period (1993–2000 or 1990–2000) by comparing average inflation and budget deficits over that period with the 2000 convergence benchmark:

$$DIV2 = \frac{1}{T}\sum_{i=1}^{T}(X_i - C_{99}) = RELDIV2 + DIV2A \tag{4.6}$$

It can be decomposed as the sum of the relevant average and relative measures (equations (4.2) and (4.4)). Table 4-1 illustrates the architecture and consistency of these convergence measures.

Table 4-1. Convergence Measures for Macroeconomic Indicators

$DIV1A = X_{2000}^{A} - C_{2000}$	$DIV2A = \frac{1}{T}\sum_{i=1}^{T}(X_i^{A} - C_{2000})$
$RELDIV1 = X_{2000} - X_{2000}^{A}$	$RELDIV2 = \frac{1}{T}\sum_{i=1}^{T}(X_i - X_i^{A})$
——————————— +	——————————— +
$DIV1 = X_{2000} - C_{2000}$	$DIV2 = \frac{1}{T}\sum_{i=1}^{T}(X_i - C_{2000})$

All SADC data are annual time–series data (see Appendix A). However, the benchmarks against which these data are judged are single data points or averages (means) over the relevant time series.

ASSESSMENT OF INFLATION AND BUDGET DEFICIT CONVERGENCE IN SADC

SADC as a Whole Compared to Benchmarks

We compared inflation in SADC to the EMBI average and budget deficits in SADC to the Maastricht 3 percent benchmark using the convergence measure. We made these comparisons for the year 2000

and for a period of years (1990–2000 for inflation and 1993–2003 for budget deficits). Table 4-2 summarizes the comparisons of SADC as a whole to the convergence benchmarks.

Table 4-2. Comparisons between SADC as a Whole and Convergence Benchmarks for Inflation and Budget Deficit (% Deviation)

Time Period	Grouping	Inflation	Budget Deficit
2000	SADC	29.8	0.8
	SADC excluding Democratic Republic of Congo	16.7	NA
	SADC excluding Democratic Republic of Congo and Angola	0.9	NA
Range of Years	SADC	127.4	1.7
(1993–2000 for Budget Deficit)	SADC excluding Democratic Republic of Congo	52.0	NA
(1990–2000 for Inflation)	SADC excluding Democratic Republic of Congo and Angola	5.2	NA

In 2000, SADC as a whole does not compare well to the benchmark in terms of inflation (29.8 percentage points difference) but does in terms of budget deficit (0.8 percentage point). However, if Angola and Democratic Republic of Congo are excluded, both inflation and budget deficit compare well with the benchmark.

The effects of hyperinflation in the earlier years push the 1990–2000 measure to 127.4 percentage points When some countries are excluded, the comparison becomes more favorable—52 if Democratic Republic of Congo is excluded, and 5.20 if both Democratic Republic of Congo and Angola are excluded. Thus, in terms of inflation, SADC performed better in 2000 than on average during the 1990–2000 period.

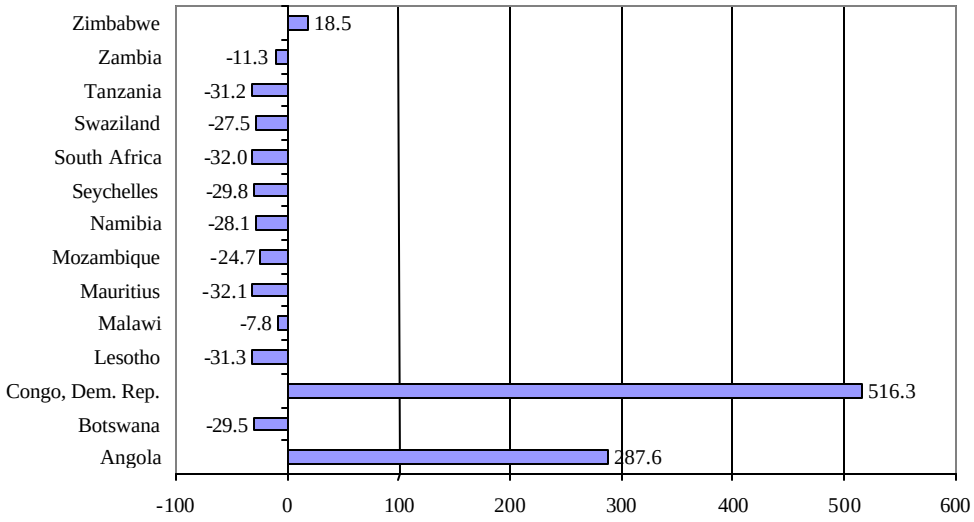
The deviation for budget deficit for 1993–2000 is higher (1.7 percentage points) than for 2000 (0.8 percentage points). We can conclude that budget deficits of SADC countries in 2000 were not representative of those over a longer time.

To summarize, SADC performed worse than both benchmarks, but more so with respect to inflation. This is true even when the two countries with hyperinflation are excluded.

Individual SADC Countries Compared to SADC Average in 2000

After comparing the SADC economy as a whole to the benchmark, we assessed individual developments within SADC—how each country's macroeconomic performance compares to the performance of SADC as a whole. We compared individual countries' inflation rates and budget deficits to the regional SADC levels in 2000 using the convergence measure.
Figure 4-1 illustrates the inflation performance of SADC countries.

Figure 4-1. Inflation in SADC Countries Compared to SADC Average in 2000 (% Deviation)



Democratic Republic of Congo and Angola had significantly worse-than-average inflation in 2000 (deviations of 516.3 and 287.6 percentage points respectively). Zimbabwe also had worse inflation than the average (a deviation of 18.5 percentage points).

The aggregate average rate is high because it includes the countries with hyperinflation; therefore all the other countries performed better than average. We therefore analyzed SADC subgroups to know how removing Democratic Republic of Congo and Angola affects the relative performance of other SADC countries. Figure 4-2 compares each country to SADC excluding Democratic Republic of Congo. This figure shows two additional countries performing worse than the average: Malawi (5.2 percentage points) and Zambia (1.7 percentage points). Figure 4-3 shows the comparison to SADC excluding Democratic Republic of Congo and Angola.

Significant differences emerge. Besides Zimbabwe (47.3 percentage points), Zambia (17.5 percent), and Malawi (21.0 percent), we now find that Mozambique, Swaziland, and Namibia also perform worse than the average. The remaining six countries perform somewhat better than average. Only South Africa and Mauritius have inflation rates that are substantially lower than the average for this grouping.

Figure 4-2. Inflation in SADC Countries Compared to SADC Average in 2000 Excluding Dem. Rep. of Congo (% Deviation)

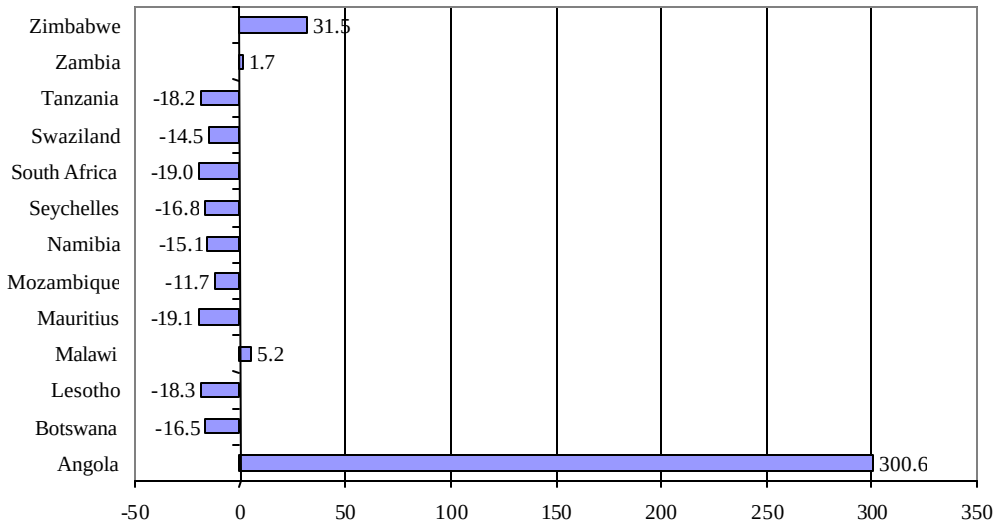


Figure 4-3. Inflation in SADC Countries Compared to SADC Average in 2000 Excluding Dem. Rep. of Congo and Angola (% Deviation)

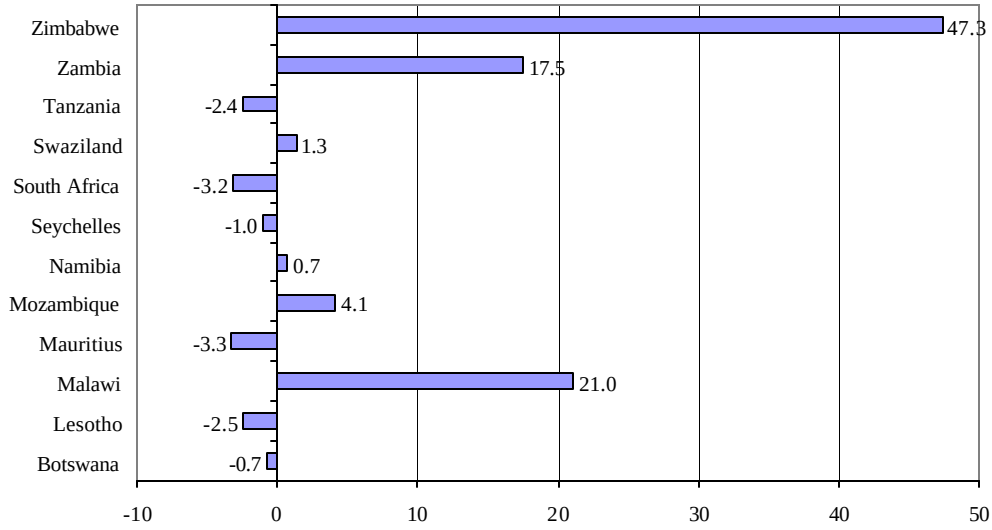
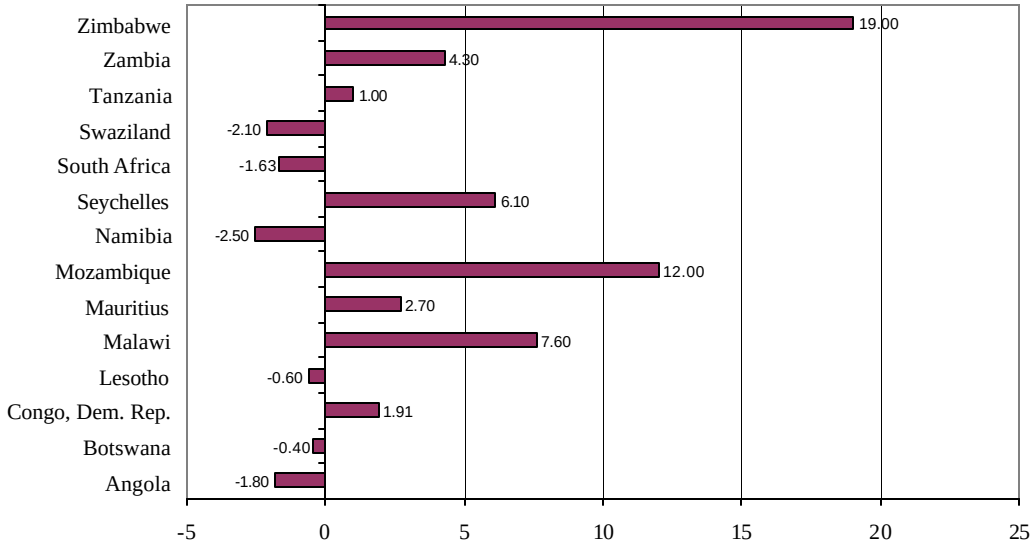


Figure 4-4 shows the fiscal position of each country relative to SADC as a whole in 2000. Five countries had higher-than-average ratios of budget deficits to GDP with a deviation of at least 4 percentage points: Zimbabwe, Mozambique, Malawi, Seychelles, and Zambia. Countries that performed better than average are Swaziland, South Africa, Angola, and Namibia, and to a lesser extent Lesotho and Botswana.

Figure 4-4. Budget Deficit of SADC Countries Compared to SADC Average in 2000



SADC countries that contributed towards regional stability in terms of both inflation and budget deficit are Botswana, Lesotho, and South Africa. Only South Africa performs significantly better on both indicators. Democratic Republic of Congo, Mozambique, Malawi, Zambia, and Zimbabwe do not contribute towards regional macroeconomic stability with respect to either inflation or budget deficit. Of these, Zimbabwe, Zambia, and Malawi score significantly worse than average on both counts. Mozambique performs significantly worse with respect to the budget deficit only, while Democratic Republic of Congo performs significantly worse only on inflation.

Namibia and Swaziland contribute to overall SADC macroeconomic stability on balance because their positive contributions in terms of budget deficit compensate for their relatively small negative contributions for inflation. Countries that occupy the middle ground in terms of overall performance are Mauritius and Tanzania. Table 4-3 summarizes the relative positions of the SADC countries in 2000 relative to the SADC average.

Table 4-3. Position of SADC Countries Relative to SADC Average in 2000

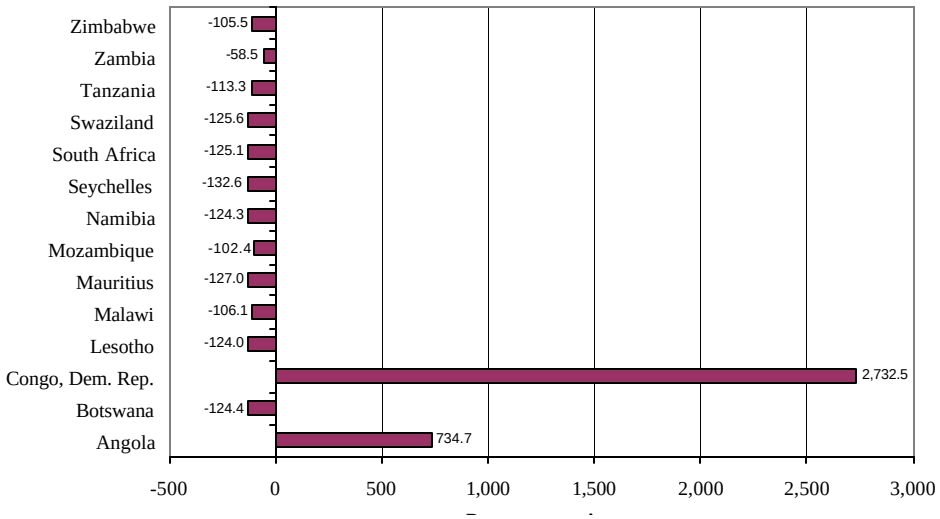
	Better-than-Average Inflation*	**Worse-than-Average Inflation***
Better-than-Average Budget Deficit	Botswana	Angola
	Lesotho	Namibia
	South Africa	Swaziland
Worse-than-Average Budget Deficit	Mauritius	Democratic Republic of Congo
	Seychelles	Mozambique
	Tanzania	Malawi
		Zambia
		Zimbabwe

* Inflation rate excluding Democratic Republic of Congo and Angola.

SADC Countries Compared to SADC as a Whole over a Range of Years

When we compare each SADC member state to the SADC average for the period 1990 to 2000, Democratic Republic of Congo and Angola still dominate the analysis in terms of the magnitude of inflation. Every other SADC country performs better than the SADC average when the two countries are included in the SADC average (Figure 4-5).

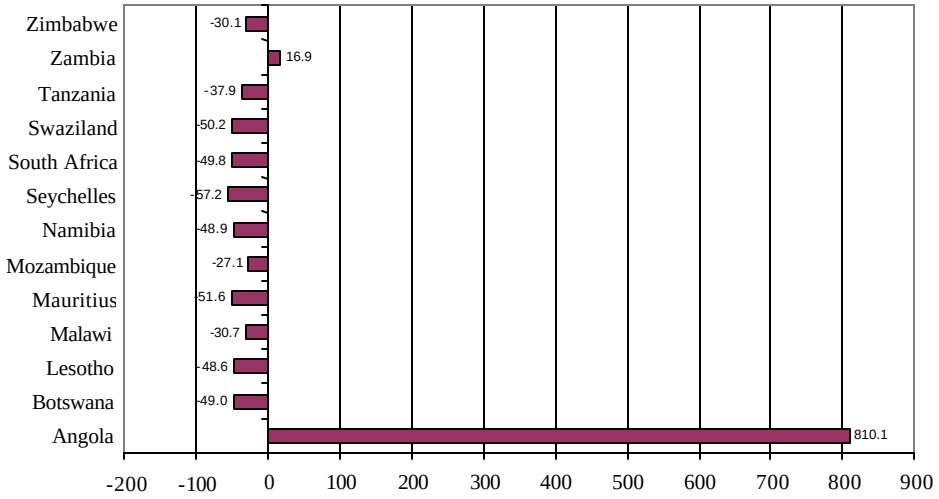
Figure 4-5. Inflation of SADC Countries Compared to SADC Average 1990–2000



Moreover, while in 2000 Democratic Republic of Congo and Angola had inflation rates that were 516.3 and 287.6 percent worse than average respectively, over the 11-year period, their inflation rates were dramatically worse: 2,732.5 and 734.7 percent respectively

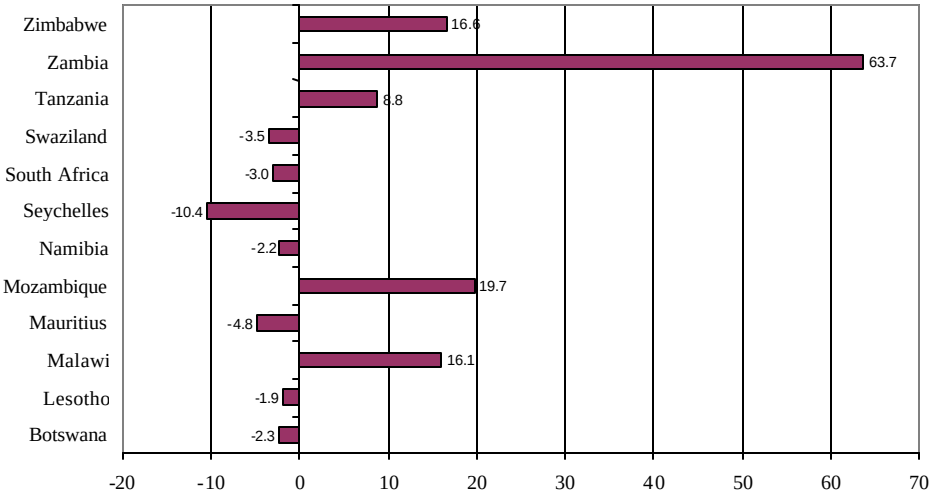
Removing Democratic Republic of Congo, as in Figure 4-6, anther country joined Angola in performing worse than the average for the group—Zambia. All the other countries performed better than average, with Mozambique the next-worst performer at 27.1 percent above average.

Figure 4-6. Inflation of SADC Countries Compared to SADC Excluding Dem. Rep. of Congo, 1990–2000



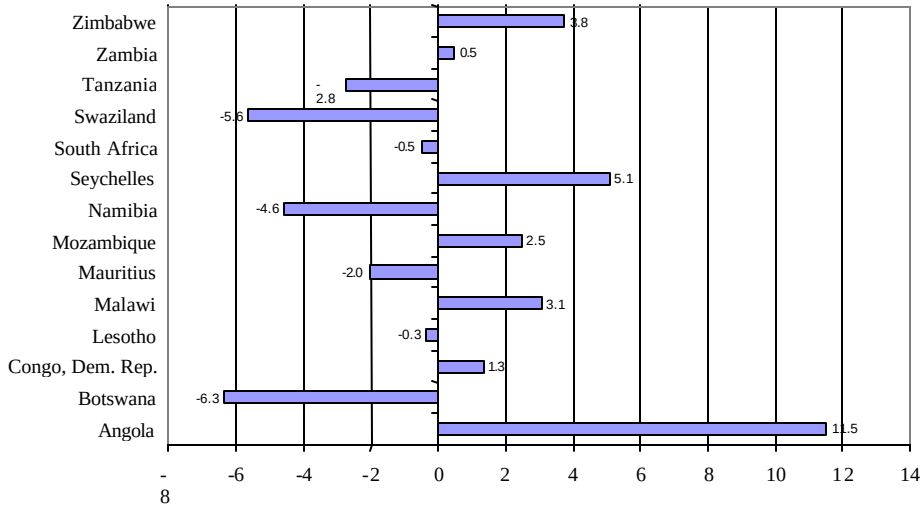
Finally, excluding Angola as well (Figure 4-7), several countries perform significantly worse than the SADC average: Zambia (63.7 percentage points), Zimbabwe (16.6), Mozambique (19.7), Malawi (16.1), and Tanzania (8.8). Seychelles now has the best performance, with 10.4 percentage points above average.

Figure 4-7. Inflation of SADC Countries Compared to SADC Excluding Dem. Rep. of Congo and Angola, 1990–2000



In terms of fiscal stability (Figure 4-8), Angola performed particularly badly over the 8-year period (11.5 percentage points), as did Zimbabwe (3.8 percentage points), Seychelles (5.1 percentage points) and Malawi (3.1 percentage points). Botswana had the best performance over the period (-6.3 percentage points), followed by Swaziland (- 5.6 percentage points) and Namibia (-4.6 percentage points).

Figure 4-8. Budget Deficit of SADC Countries 1993–2000 Compared to SADC as a Whole in 2000



Comparing individual countries' performance during a single year and their performance over a longer period is enlightening. We can determine which countries had a macroeconomic performance in 2000 that is unrepresentative of their performance over the longer period.

For inflation (using Figures 4-3 and 4-7, which exclude Democratic Republic of Congo and Angola), Zimbabwe was the worst performer for 2000, whereas over the longer period Zambia was the worst performer. This could be interpreted as a sign that Zambia improved its relative performance and Zimbabwe deteriorated.

Similarly, we find that Mozambique had a relatively worse and Malawi a relatively better inflation performance 1990–2000 than for 2000 alone. The Seychelles showed a more impressive inflation performance 1990–2000 than for 2000 alone, although it already performed better than the average for SADC excluding Democratic Republic of Congo and Angola in 2000.

We find less divergence in budget deficits than for inflation between the longer period (1993–2000) and 2000. Whereas in 2000 four countries had deviated by more than 5 percent (Zimbabwe, Mozambique, Malawi and the Seychelles), over the longer period only two (Angola and Seychelles) deviated by more than 5 percent. Only the Seychelles underperformed by a wide margin on both measures. In addition, whereas for 2000 no country scored more than 2.5 percentage points better than average, over the longer period Tanzania and Namibia exceeded this mark. Swaziland and Botswana even exceeded 5 percent deviation.

Finally, some countries had entirely different results for the different measures. Namibia did better than average on inflation over the period (1990–2000) but not for 2000, while Tanzania had the opposite profile. In terms of budget deficits, Mauritius and Tanzania went from worse than average in 2000 to better than average for 1993–2000, while Angola did the opposite. Table 4-4 summarizes the results of the convergence measure for the range of years; the arrows indicate direction of changes from the 2000 measure.

Table 4-4. Position of SADC Countries Relative to SADC Average Over a Range of Years

	Better-than-Average Inflation*	Worse-than-Average Inflation*
Better-than-Average Budget Deficit	Botswana Lesotho South Africa Swaziland Namibia Mauritius	Tanzania
Worse-than-Average Budget Deficit	Seychelles	Congo, Dem Rep. Mozambique Malawi Zambia Zimbabwe Angola

* Inflation rate excluding Democratic Republic of Congo and Angola.

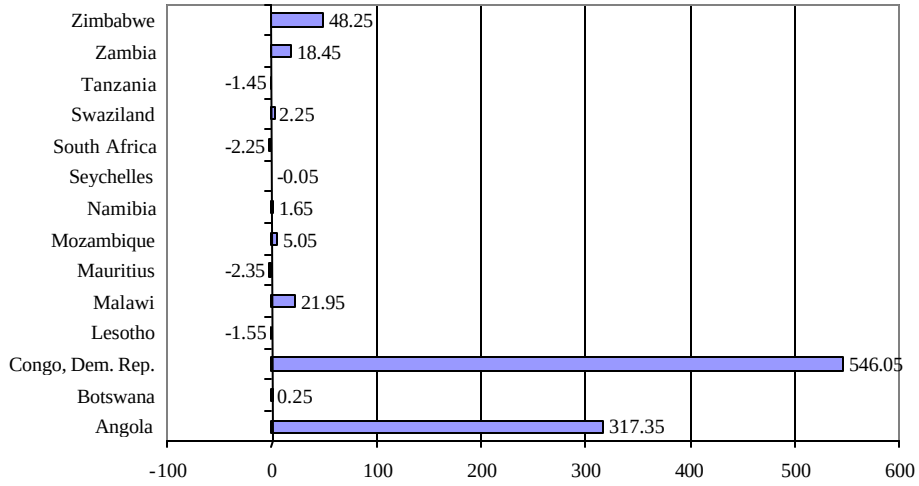
Note: Arrows indicate direction of change from the 2000 measure.

The countries that contributed towards regional macroeconomic stability in terms of both inflation and budget deficit are Botswana, Lesotho, and South Africa. Namibia, Swaziland, and Mauritius also contributed to a lesser extent in a structural sense, although each falls below the average for the 2000 measure. Seychelles contributed positively in terms of inflation but negatively in terms of budget deficit. Tanzania showed mixed results. Angola's fiscal performance in 2000 is not representative of its performance over a longer period, so it is among the countries that hurt stability in SADC over the long term. Other countries that fall into this category are Democratic Republic of Congo, Mozambique, Malawi, Zambia (mainly because of inflation), and Zimbabwe.

Individual SADC Countries in 2000 Compared to Convergence Benchmarks

The position of each SADC country in relation to the convergence benchmarks can be seen as the sum of its individual position in the SADC economy and the position of SADC (as a whole) compared to the benchmark. Figure 4-9 shows the deviation ratio of individual SADC countries' inflation rates in 2000 to the EMBI average. [21]

Figure 4-9. Inflation of SADC Countries in 2000 Compared to EMBI Average

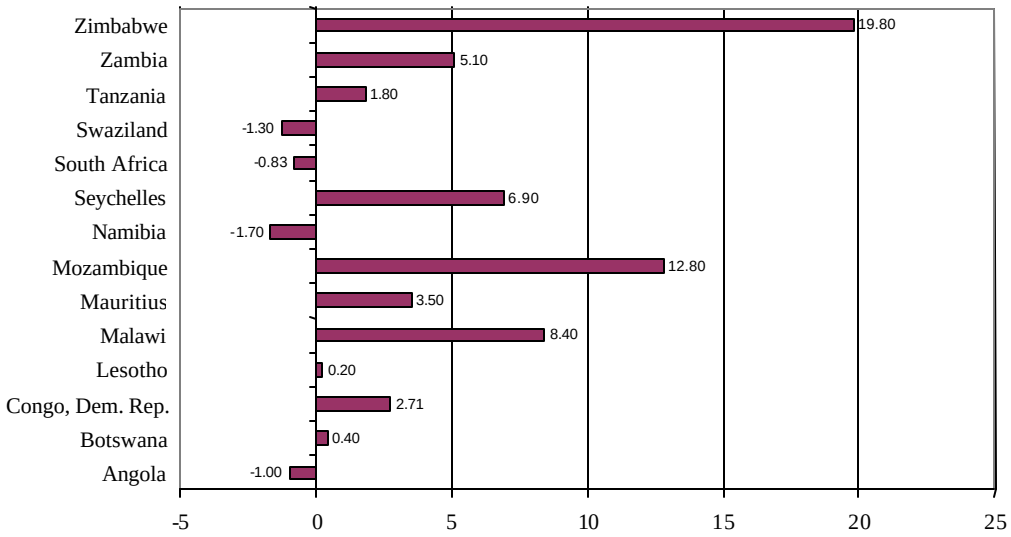


As expected, Democratic Republic of Congo (546.1) and Angola (317.4) do not compare well to the inflation benchmark. Other countries that performed worse than the inflation benchmark are Zimbabwe (48.3), Malawi (22), Zambia (18.45), and Mozambique (5.05). Three countries are relatively close to the benchmark: Swaziland (2.25), Namibia (1.65), and Seychelles (-0.1). Four countries outperform the benchmark by a margin: Tanzania (-1.5), South Africa (-2.25), Mauritius (-2.4), and Lesotho (-1.6).

Figure 4-10 shows the deviation ratio of individual SADC countries' 2000 budget deficits to the Maastricht 3 percent benchmark.

[21] Because we do not exclude the countries with hyperinflation at this stage, the scale of the figure is compressed. In other words, deviations from the average are larger than they appear.

Figure 4-10. Budget Deficit of SADC Countries in 2000 Compared to Maastricht Benchmark



Fiscal performance is broadly similar as for inflation, but the countries have different rankings. Countries diverging widely from the 3 percent benchmark are Zimbabwe (19.8), Mozambique (12.8), Malawi (8.4), Seychelles (6.9), Zambia (5.1), Mauritius (3.5), and Democratic Republic of Congo (2.7). Relatively close to the benchmark are Tanzania (1.8), Botswana (0.4), and Lesotho (0.2). As with inflation, four countries exceeded the benchmark, although by a smaller margin: Swaziland (-1.3), South Africa (-0.8), Namibia (-1.7), and Angola (-1).

Only South Africa outperformed both benchmarks. Other countries that performed relatively well are Namibia, which came close to the inflation benchmark and outperformed the budget deficit benchmark, and Swaziland, which also came close to the inflation benchmark, but met the fiscal benchmark. Tanzania also did well on inflation and not too poorly on its budget deficit, and Lesotho met the inflation benchmark and came close to the fiscal benchmark. In all the other countries, when a country met one benchmark it performed poorly on the other. Botswana failed to meet either of the benchmarks, but by a narrow margin. Finally, Zimbabwe, Zambia, Mozambique, Malawi, and Democratic Republic of Congo performed poorly on both counts. Table 4-5 summarizes the results in terms of benchmarks.

For fiscal balances, the SADC 2000 average of 3.8 percent is also less ambitious than the 3 percent Maastricht benchmark. Botswana and Lesotho scored better than average yet failed to attain the Maastricht benchmark.

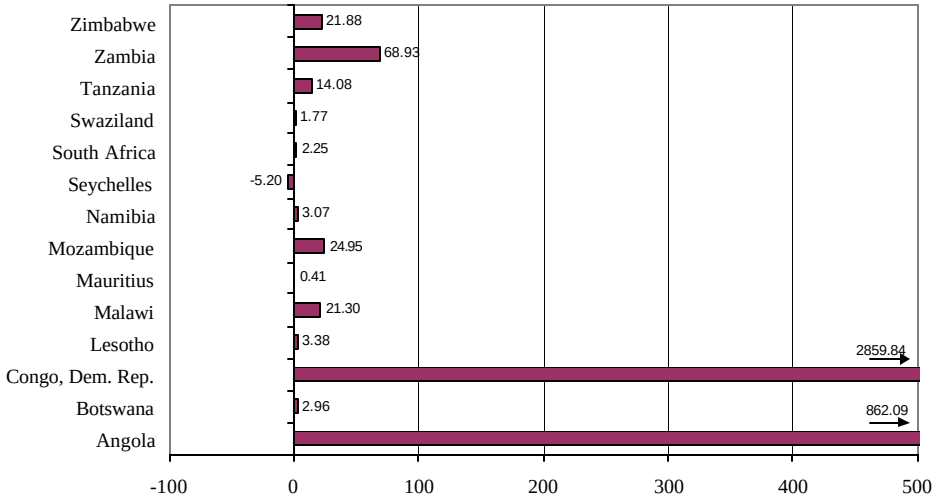
Table 4-5. Position of SADC Countries Relative to Convergence Benchmarks in 2000

	Better than Inflation Benchmark	Worse than Inflation Benchmark
Better than Budget-Deficit Benchmark	South Africa	Angola Namibia Swaziland
Worse than Budget-Deficit Benchmark	Mauritius Tanzania Botswana Lesotho	Congo, Dem Rep. Mozambique Malawi Zambia Zimbabwe Seychelles

Individual SADC Countries for Range of Years Compared to Convergence Benchmarks

Next we examine the economic performance of SADC countries over a range of years (1990–2000 for inflation and 1993–2000 for budget deficits) and compare the countries' macroeconomic indicators with the benchmarks for 2000. Figure 4-11 illustrates the results of the measures.

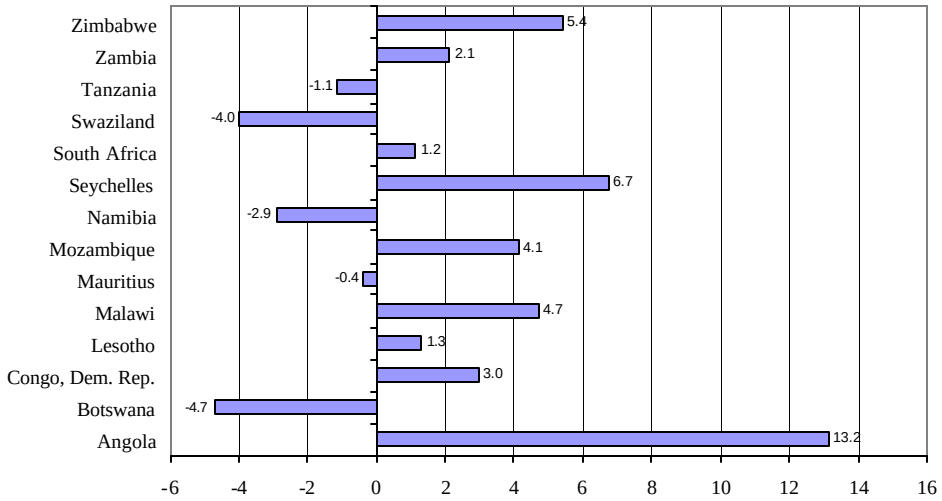
Figure 4-11. Inflation in SADC Countries 1990–2000 Compared to EMBI Average for 2000



Only the Seychelles (- 5.2) outperformed the benchmark. Countries that came close to meeting the benchmark are South Africa (2.25), Swaziland (1.77), and Mauritius (0.4). Furthermore, Namibia (3.1), Botswana (3.0), and Lesotho (3.4) are not very far off. For the other countries, the picture is not positive. Besides the countries with hyperinflation (Democratic Republic of Congo and Angola), four other countries score more than 20 percentage points worse than the benchmark: Malawi (21.3), Mozambique (25), Zambia (68.9), and Zimbabwe (21.9).

Figure 4-12 shows which SADC countries met the Maastricht budget-deficit benchmark for 1993–2000. Five SADC countries succeed: Botswana (- 4.7), Mauritius (-0.4), Namibia (-2.9), Swaziland (- 4) and Tanzania (-1.1). Countries that are not far from meeting the benchmark are South Africa (1.2), Lesotho (1.3), and Zambia (2.1). Several countries in SADC do not come close to meeting the benchmark over a longer period.

Figure 4-12. Budget Deficits in SADC Countries 1993–2000 Compared to EMBI Average for 2000



More countries met the budget-deficit benchmark for the period 1993–2000 than for 2000 alone. Only one country, however, met the inflation benchmark for 1990–2000, while four countries' 2000 inflation rates met the benchmark. No country in SADC met both the deficit and the inflation benchmarks over the range of years. Table 4-6 summarizes the findings for the range-of-years measure; the arrows indicate the direction of countries' changes from the 2000 measure.

Comparing the results of the measure for the SADC average to the results of the measure for the benchmarks is informative. Differences arise because the SADC averages for both macroeconomic indicators are less stringent than the benchmarks.

For inflation, the SADC average (excluding Democratic Republic of Congo and Angola) is 12.9 percent[22] and the EMBI benchmark is 7.65 percent. Countries that performed better than the SADC average but failed to achieve the benchmark over the period are Botswana, Lesotho, South Africa, Swaziland, Namibia, and Mauritius.

[22] If Democratic Republic of Congo and Angola had been included, the average inflation would have been 135.04 percent.

Table 4-6. Position of SADC Countries Relative to Benchmark Over a Range of Years

	Better than Inflation Benchmark	Worse than Inflation Benchmark
Better than Budget-Deficit Benchmark		Namibia Swaziland Tanzania Mauritius Botswana
Worse than Budget-Deficit Benchmark	Seychelles	Democratic Republic of Congo Mozambique South Africa Zambia Zimbabwe Lesotho Malawi Angola

For budget deficits, the benchmark is 3 percent and the SADC period average 4.65 percent. Only one country, however—Botswana —performed better than the SADC average but did not meet the benchmark.

ASSESSMENT OF DEBT AND CURRENT ACCOUNT CONVERGENCE IN SADC

SADC as a Whole Compared to Benchmarks

We compared the debt-to-GNI ratio and the current account (balance of payments-to-GDP ratio) for SADC as a whole to the EMBI benchmarks (36.01 percent of GNI for debt and a surplus of 1.2 percent for the current account) using the convergence measures. Table 4-7 summarizes the results of these comparisons.[23]

Table 4-7. Comparisons between SADC as a Whole and Convergence Benchmarks for Debt and Current Account (% Deviation)

Time Period	Grouping	Debt	Current Account
2000	SADC	5.18	2.48
Range of Years (1990—2000)	SADC	NA	3.01

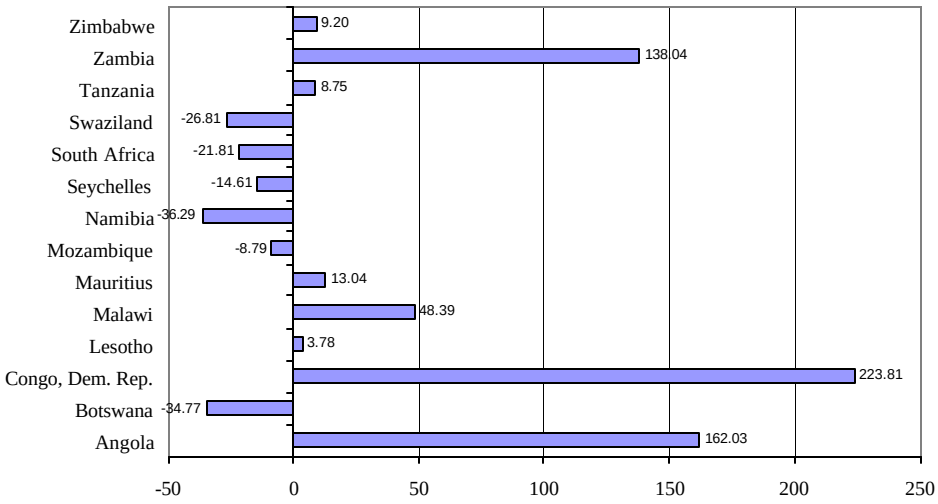
[23] We had debt data only for 2000. Data tables and sources are in Appendix A.

SADC as a whole compares better with the EMBI in terms of the current account than in terms of debt. If Angola and Democratic Republic of Congo (or possibly Zambia) are excluded the comparison for 2000 would look better.

Individual SADC Countries Relative to SADC Average in 2000

We also compared individual SADC countries' current accounts and debt-to-GNI ratios to the performance of the SADC aggregate in 2000 using the convergence measures. Figure 4-13 shows the debt comparison.

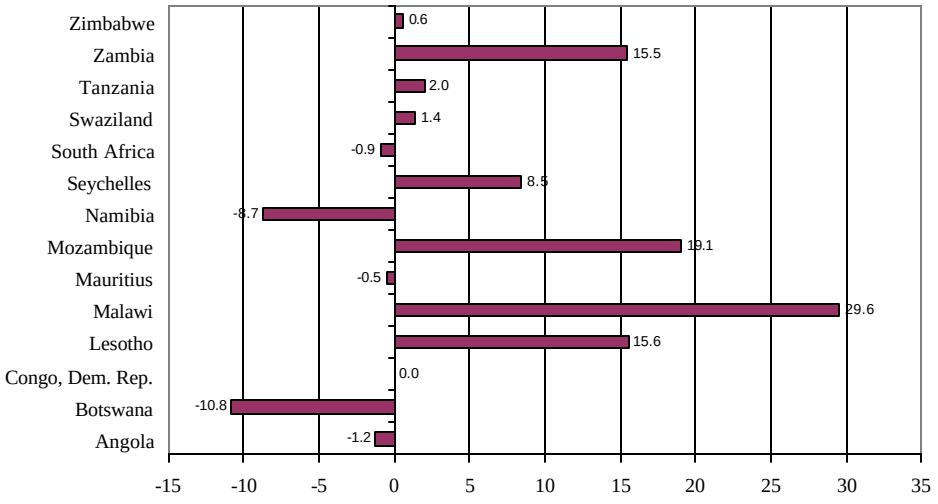
Figure 4-13. Debt in SADC Countries Compared to SADC Average in 2000



Swaziland, South Africa, Seychelles, Namibia, Mozambique, and Botswana outperformed SADC as a whole in 2000 in terms of debt. Zambia, Tanzania, Mauritius, Malawi, Lesotho, the Democratic Republic of Congo, and Angola have higher debts than the regional average.

Figure 4-14 illustrates the relative positions of SADC countries to the SADC average in terms of the current account for 2000.

Figure 4-14. Current Account in SADC Countries Compared to SADC Average in 2000 (as % of GDP)



South Africa, Namibia, Mauritius, Botswana, Angola and the Democratic Republic of Congo performed better than SADC as a whole while Zambia, Tanzania, Swaziland, Seychelles, Mozambique, Malawi, and Lesotho performed worse.

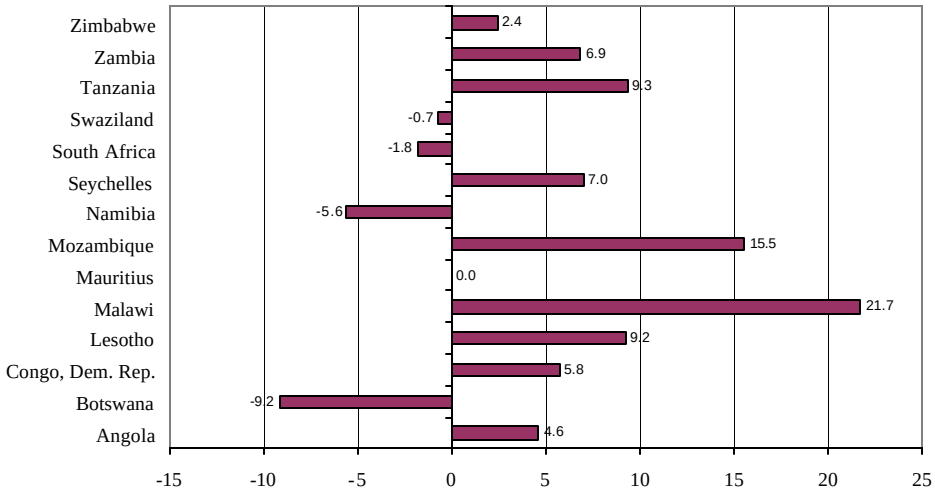
Countries that contributed to regional macroeconomic stability with respect to both the current account and debt are South Africa, Namibia, and Botswana. Zambia, Tanzania, Malawi, and Lesotho did not contribute to regional macroeconomic stability with respect to both the current account and debt. Swaziland, Seychelles, Mozambique, Mauritius, Democratic Republic of Congo, and Angola occupied the middle ground.

Swaziland, Seychelles and Mozambique had lower debt than the regional average but worse current account positions (especially Mozambique). The opposite is true for Mauritius, Democratic Republic of Congo, and Angola—these countries have a lower current account deficit than the regional average but higher levels of debt (especially Democratic Republic of Congo and Angola).

Current Account of SADC Countries Compared to SADC Average for the Period 1990–2000

Figure 4-15 shows the results of the comparisons of individual SADC countries to the SADC average for the period 1990–2000 using the convergence measure.

Figure 4-15. Current Account in SADC Countries Compared to SADC Average 1990–2000 (as % of GDP)



South Africa, Namibia, Botswana, and Mauritius performed better than the SADC average over a range of years, as they did in 2000. Angola and Democratic Republic of Congo, which outperformed the regional average in 2000, performed worse than average over the longer period. Their 2000 performance therefore could be seen as a positive outlier. Zambia, Tanzania, Seychelles, Mozambique, Malawi, and Lesotho performed worse in terms of the current account than the regional average for the period, as for 2000. Swaziland, which performed worse than the SADC average in 2000, had a better-than-average performance for the period 1993–2000, which means that its poor 2000 performance was unrepresentative of its performance for the longer period.

Individual SADC Countries Compared to Benchmarks in 2000

After assessing the SADC economy as a whole, we compared individual countries' macroeconomic performance to the EMBI benchmarks (for debt, 36.01 percent and for current account, +1.2 percent of GDP) in 2000, calculating the deviation in percentage points. The position of each SADC country vis-à-vis the EMBI benchmark can be seen as the sum of its individual position in the regional SADC economy and the position of SADC as a whole compared to the EMBI benchmark.

Figure 4-16 illustrates the results for debt.[24] Botswana, Namibia, Swaziland, South Africa, Seychelles, and Mozambique outperformed the EMBI benchmark on debt. Zambia, Malawi, Democratic Republic of Congo, and Angola had substantially higher levels of debt than the EMBI benchmark. Zimbabwe, Tanzania, Mauritius, and Lesotho had approximately the same level of debt as the benchmark.

Figure 4-16. Debt in SADC Countries Compared to Benchmark for 2000 (as % of GNI)

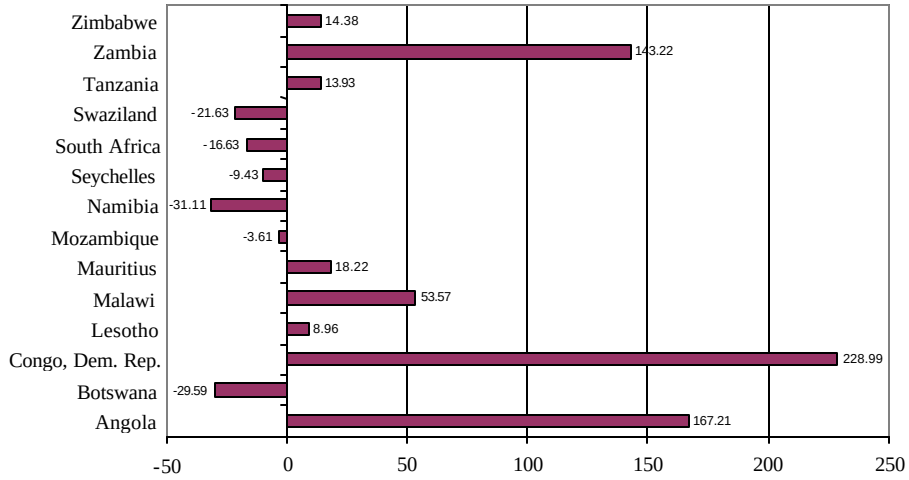


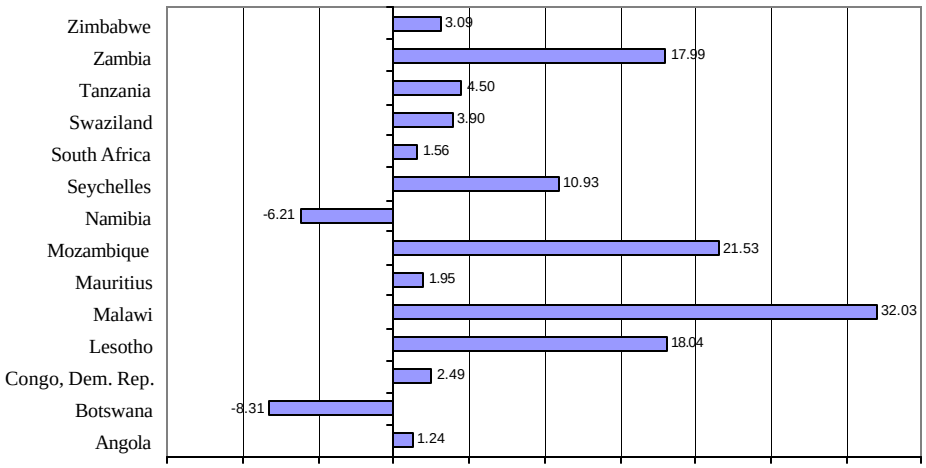
Figure 4-17 shows the position of SADC countries' current accounts vis-à-vis the benchmark for 2000. With respect to the current account, only Namibia and Botswana performed better than the benchmark. Zambia, Mozambique, Malawi and Lesotho did substantially worse in terms of current account than the EMBI benchmark. In between these extremes lie Zimbabwe, Tanzania, Seychelles, Swaziland, South Africa, Mauritius, Democratic Republic of Congo and Angola. For all practical purposes, South Africa, Mauritius, and Angola converged on the current account front—their current account deficits deviated from the benchmark in 2000 by less than 2 percentage points—and Democratic Republic of Congo was not far off.

The only countries that outperformed the EMBIA region with respect to both the current account and debt are Botswana and Namibia. Zimbabwe, Zambia, Tanzania, Mauritius, Malawi, Lesotho, Democratic Republic of Congo, and Angola performed worse that the benchmark in terms of both the current account and debt. Countries with more complex characteristics are Swaziland, South

[24] Greece was not included in the EMBI average for debt because this information was not available, and we reweighted the EMBI average for this comparison.

Africa, Seychelles, and Mozambique. They outperformed the EMBIA on debt, but had inferior current account positions.

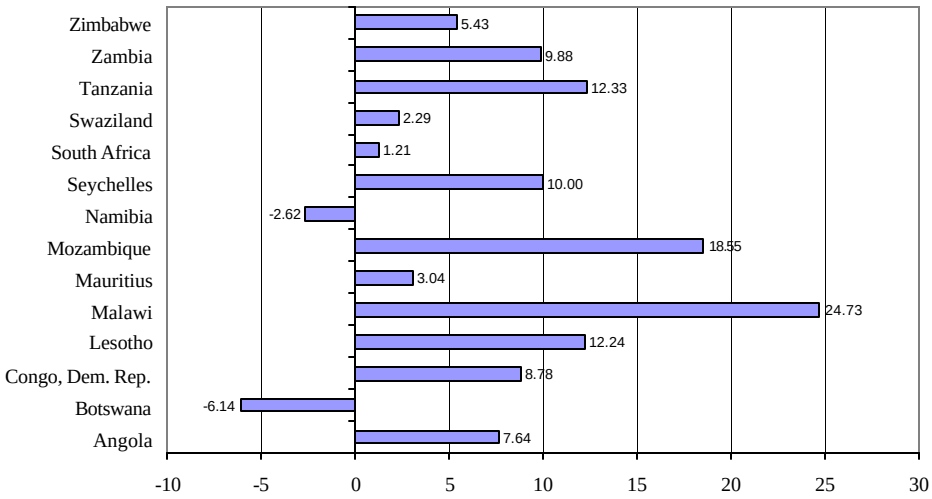
Figure 4-17. Current Accounts of SADC Countries Compared to Benchmark for 2000 (as % of GDP)



Current Account of Individual SADC Countries 1990–2000 Compared to Benchmark

We now look at economic performance over a longer period (1990–2000) and contrast the average current account deficit over that period with the benchmark. This measure can also be decomposed as the sum of the relevant average and relative indicators (equations (2) and (4)). Results of these calculations are shown in Figure 4-18.

Figure 4-18. Current Accounts of SADC Countries 1990–2000 Compared to Benchmark (as % of GDP)



Namibia and Botswana still outperformed the EMBI benchmark. All other SADC countries performed worse than the benchmark.

Summary of Detailed Analysis

Table 4-8 summarizes the state of convergence of SADC in relation to the benchmarks.

Table 4-8. SADC Convergence with Respect to Peer Group Benchmarks

Country	Inflation[a]	Budget Deficit[b]	Current Account[a]	Debt[c]
Angola				
Botswana		✓	✓	✓
Congo, Democratic Republic				
Lesotho				
Malawi				
Mauritius		✓		
Mozambique				✓
Namibia		✓	✓	✓
Seychelles	✓			✓
South Africa				✓
Swaziland		✓		✓
Tanzania		✓		
Zambia				
Zimbabwe				

✓— Performs as well as or outperforms the benchmark.

[a] For 1990–2000

[b] For 1993–2000

[c] for 2000

5. Evaluation of Targeting Strategies

We compared SADC to the J.P. Morgan Emerging Markets Bond Index (EMBI) in Chapters 3 and 4 to give us some perspective on the current state of convergence of SADC in relation to other developing countries and of SADC countries in relation to the whole of SADC. In this chapter we will find appropriate targeting strategies for SADC to use to determine the targets it must reach in order to achieve macroeconomic convergence. Should SADC countries aim for a common target with respect to a certain macroeconomic variable or should they set individual (country-specific) targets? We assess several targeting strategies: discretionary national targeting, block targeting, and common targets. The selection criterion is simple: Does a strategy achieve (or foster) convergence?

DEFINITION OF CONVERGENCE

SADC member states have agreed that to achieve macroeconomic stability, their countries' economic policies must

- Restrict inflation to low and stable levels;
- Maintain a prudent fiscal stance that eschews large fiscal deficits, monetization of deficits, high public debt, and large financial imbalances in the economy; and
- Minimize market distortions, both internal and international.

From these requirements we established the following two necessary conditions for convergence:

1. National outcomes of macroeconomic indicators should not diverge widely from those of other member states.
2. These outcomes should lie in the low range.

If both these conditions are not satisfied there can be no convergence. We will assess and rank targeting strategies using these two conditions to determine if the strategies foster convergence.

We compare individual countries' inflation rates to the SADC average in a certain period to determine if a targeting strategy meets condition 1. (This chapter examines inflation only, but these measures apply to the other macroeconomic indicators as well.)We quantify condition 1 by using a convergence measure introduced in Chapter 4:

$$RELDIV1 = X_t - X_t^{SADC} \tag{5.1}$$

If the difference between individual countries' inflation rates and average SADC inflation is suitably low at a certain point in time, t, condition 1 is met.

The convergence measure used to determine if condition 2 is met is the SADC average for the macroeconomic indicator.

$$X^{SADC} \tag{5.2}$$

This may be the weighted or unweighted average. If the SADC average is low, condition 2 is met, and if it is high, condition 2 is not met.

DISCRETIONARY NATIONAL TARGETS

Discretionary national targeting means that each country decides its own inflation target. What are the pros and cons of such a system?

Discretionary National Targets Using Weighted Average

With purely national targets using the weighted average, the SADC inflation rate becomes indeterminate. In other words, the SADC inflation rate will be simply the average of individual countries' inflation rates. Table 5-1 shows inflation in SADC in 2000 and the weighted share for each country.

Table 5-1. Inflation in SADC in 2000

Country	Inflation Rate (%)	GDP (US$ billion)	Share of SADC GDP (%)	GDP-Weighted Share of SADC Inflation (%)
Angola	325	8.86	4.87	15.8275
Botswana	7.9	5.03	2.77	0.21883
Congo, Dem. Rep.	553.7	4.48	2.46	13.62102
Lesotho	6.1	0.87	0.48	0.02928
Malawi	29.6	1.67	0.92	0.27232
Mauritius	5.3	4.40	2.42	0.12826
Mozambique	12.7	3.75	2.06	0.26162
Namibia	9.3	3.44	1.89	0.17577
Seychelles	7.6	0.58	0.32	0.02432
South Africa	5.4	128.01	70.40	3.8016
Swaziland	9.9	1.40	0.77	0.07623
Tanzania	6.2	9.03	4.96	0.30752
Zambia	26.1	3.24	1.78	0.46458
Zimbabwe	55.9	7.06	3.88	2.16892
SADC	37.38	181.82	NA	NA

SADC inflation stood at nearly 37.4 percent in 2000 when calculated using the weighted average—condition 2 is not met. The biggest contributors to SADC inflation were Angola (15.8 percent) and the Democratic Republic of Congo (13.6 percent). National targeting using weighted

averages could work if all countries in SADC were committed to targeting inflation. However, the only SADC country that has instituted inflation targets is South Africa.

Table 5-2 shows the variables for calculating convergence measure 1 to determine if condition 1 for targeting strategies is met.

Table 5-2. Deviation between Inflation in SADC Countries and SADC Weighted Average (2000)

Country	Inflation Rate	Deviation between Country Rate and SADC Rate (37.38%) (%)	Deviation between Country Rate and SADC Rate Excluding Dem. Rep. of Congo (24.37%)	Deviation between Country Rate and SADC Rate Excluding Dem. Rep. of Congo and Angola (8.56 %)
Angola	325	287.62	300.63	NA
Botswana	7.9	- 29.48	- 16.47	- 0.66
Congo, Dem. Rep.	553.7	516.32	NA	NA
Lesotho	6.1	- 31.28	- 18.27	- 2.46
Malawi	29.6	- 7.78	5.23	21.04
Mauritius	5.3	- 32.08	- 19.07	- 3.26
Mozambique	12.7	- 24.68	- 11.67	4.14
Namibia	9.3	- 28.08	- 15.07	0.74
Seychelles	7.6	- 29.78	- 16.77	- 0.96
South Africa	5.4	- 31.98	- 18.97	- 3.16
Swaziland	9.9	- 27.48	- 14.47	1.34
Tanzania	6.2	- 31.18	- 18.17	- 2.36
Zambia	26.1	- 11.28	1.73	17.54
Zimbabwe	55.9	18.52	31.53	47.34

Inflation rates deviate from the average in a range from - 32.08 to 516.32—a distance of 548.4. This wide deviation means that this targeting strategy fails to meet condition 1 as well.

One drawback to using GDP weights in setting targets for macroeconomic indicators is that high-inflation countries tend to have low GDP shares. In SADC, South Africa has low inflation and a GDP share of over 70 percent. The inflation rates of Angola, Democratic Republic of Congo, and Zimbabwe in 2000 ranged from 56 to 554 percent, but together these countries made up only about 11 percent of SADC GDP. High-inflation countries therefore are under-represented in the average and these calculations may be biased in the direction of finding convergence when some national outcomes, in fact, are diverging widely from the target.

Discretionary National Targets Using Unweighted Average

We also calculated the SADC average as the simple unweighted average of each country's inflation rate. In Table 5-3, each country has one-fourteenth the weight of the whole in determining inflation in SADC.

Table 5-3. Inflation in SADC Using Unweighted Average (2000)

Country	Inflation Rate	Share in SADC Inflation
Angola	325	23.21
Botswana	7.9	0.56
Congo, Dem. Rep.	553.7	39.55
Lesotho	6.1	0.44
Malawi	29.6	2.11
Mauritius	5.3	0.38
Mozambique	12.7	0.91
Namibia	9.3	0.66
Seychelles	7.6	0.54
South Africa	5.4	0.39
Swaziland	9.9	0.71
Tanzania	6.2	0.44
Zambia	26.1	1.86
Zimbabwe	55.9	3.99
SADC Average	75.8	NA

SADC inflation stood at 75.8 percent in 2000. Angola had a rate of 23.2 percent and the Democratic Republic of Congo a rate of 39.6 percent. In terms of achieving convergence, condition 2 is not met: Average inflation in SADC is high. Table 5-4 shows each country's deviation from the average when unweighted averages are used.

Table 5-4. Deviation between Inflation in SADC Countries and Unweighted SADC Average

Country	Inflation Rate (%)	Deviation between Country and SADC Rates (75.76%)	Deviation between Country and SADC Rates Excluding Dem. Rep. of Congo (39%)	Deviation between Country and SADC Rates Excluding Dem. Rep. of Congo and Angola (15.17%)
Angola	325	249.24	286.00	NA
Botswana	7.9	- 67.86	- 31.10	- 7.27
Congo, Dem. Rep.	553.7	477.94	NA	NA
Lesotho	6.1	- 69.66	- 32.90	- 9.07
Malawi	29.6	- 46.16	- 9.40	14.43
Mauritius	5.3	- 70.46	- 33.70	- 9.87
Mozambique	12.7	- 63.06	- 26.30	- 2.47
Namibia	9.3	- 66.46	- 29.70	- 5.87
Seychelles	7.6	- 68.16	- 31.40	- 7.57
South Africa	5.4	- 70.36	- 33.60	- 9.77
Swaziland	9.9	- 65.86	- 29.10	- 5.27
Tanzania	6.2	- 69.56	- 32.80	- 8.97
Zambia	26.1	- 49.66	- 12.90	10.93
Zimbabwe	55.9	- 19.86	16.90	40.73

The relative deviations from the unweighted average range from -70.46 to 477.94—a distance of 548.4—which is the same as when using the weighted average. This strategy also fails to meet condition 1.

Divergence is unaffected by the weighting scheme, but the average is affected. Although neither strategy meets either condition, we conclude that it is better to define the SADC unweighted average because this strategy does not bias the results of the average towards suggesting convergence where there is none.

BLOCK TARGETING

Block Target Using Weighted Average

We analyzed a targeting strategy whereby SADC sets one regional target for it to achieve as a block. To facilitate the analysis, we divided SADC into two groups of countries: South Africa and the rest. This division is arbitrary and has no effect on the generality of the results. Any two groupings would work. Table 5-5 shows GDP in SADC by country and by regional group.

Table 5-5. Weighted Group Share of GDP in SADC in 2000

Country	GDP (US$ billion)	Group Share of SADC GDP (%)
South Africa	128.01	70.40
Rest of SADC	53.81	29.60

If the shares of SADC GDP by grouping are (roughly) 70 and 30 percent, as in this grouping, the convergence measure for a block target is defined as

$$X^{SADC} = 0.7X^{RSA} + 0.3X^{REST}$$

If SADC decides to set a block target for inflation at 6 percent, the equation becomes

$$6 = 0.7X^{RSA} + 0.3X^{REST}.$$

Any number of scenarios could achieve a SADC block target of 6 percent. For example, if South Africa had an inflation rate of zero percent and the rest of SADC had an inflation rate of 20 percent, or if South Africa had inflation of 8.57 percent and the rest of SADC had an inflation rate of zero percent, SADC as a block would achieve 6 percent inflation. Thus, with a SADC block target using the weighted average, individual country performance is indeterminate. In both of these cases the weighted average inflation rate for SADC is 6 percent, so convergence condition 2 is met.

To assess whether this strategy meets condition 1, we look at the relative deviation from the average of the groupings of countries. In the first scenario, South Africa would have a divergence indicator of –6, and the rest of SADC 14. That is, the range of divergence would be from –6 to 14 (a distance of 20). In the second case, the range would be from –6 (rest of SADC) to 2.57 (a distance of 8.57). So in general there is no guarantee that condition 1 will be met; or in other words, convergence is essentially indeterminate.

One problem with implementing a block target strategy is that it enables poorly performing countries to free ride on the good performance of others. If one set of countries undershoots the block target, the other group can overshoot the target. For example, with a block target of 6 percent, if inflation in the rest-of-SADC group stands at 5 percent, South Africa can have an inflation rate of 6.43 percent and SADC will meet its inflation target. Or if South Africa's inflation rate is 5 percent, the rest of SADC can have an inflation rate of 8.33 percent and SADC will meet its inflation target.

The extent to which the rest of SADC can overshoot the target (2.33 percent) is greater than for South Africa (0.43 percent). The extent of overshooting possible is inversely related to the share of that group in total SADC GDP. In other words, the smaller the group of countries is in economic terms, the greater the extent to which those countries can free ride on the good performance of other countries. Table 5-6 shows the highest inflation rate that a SADC country can have without jeopardizing the 6 percent block target if all other SADC countries undershoot the target by 1 percent. This is called the free-rider inflation rate.

Table 5-6. SADC Weighted Block Targeting and Free-Rider Incentives

Country	Share of SADC GDP (%)	Inflation Rate in 2000 (%)	Free-Rider Inflation Rate (%)	Change in Inflation Relative to 2000 (%)
Angola	4.87	325	25.53	- 299.47
Botswana	2.77	7.9	41.10	33.20
Congo, Dem. Rep.	2.46	553.7	45.65	- 508.05
Lesotho	0.48	6.1	213.33	207.23
Malawi	0.92	29.6	113.70	84.10
Mauritius	2.42	5.3	46.32	41.02
Mozambique	2.06	12.7	53.54	40.84
Namibia	1.89	9.3	57.91	48.61
Seychelles	0.32	7.6	317.50	309.90
South Africa	70.40	5.4	6.42	1.02
Swaziland	0.77	9.9	134.87	124.97
Tanzania	4.96	6.2	25.16	18.96
Zambia	1.78	26.1	61.18	35.08
Zimbabwe	3.88	55.9	30.77	- 25.13
SADC Average	99.98*	37.3	–	–

*Doesn't sum to 100 because of rounding.

Quite a few small countries in SADC have serious inflation problems: Angola, Democratic Republic of Congo, Malawi, Zimbabwe, and Zambia. The free-rider inflation rate is inversely related to a country's share in SADC GDP—smaller countries have a bigger incentive to free ride. In fact, inflation in Malawi and Zambia could rise from the 2000 level and SADC still would reach the

6 percent target. So in addition to not furthering convergence, block targeting using a weighted average is a bad disciplining device.[25]

SADC Block Target Using Unweighted Average

To check the robustness of the result using the weighted average we also calculated the simple unweighted average. The share of each of the two groupings is 50 percent, and the convergence measure is defined as

$$X^{SADC} = 0.5X^{RSA} + 0.5X^{REST}$$

If SADC as a block targets inflation at 6 percent,[26] the convergence measure is

$$6 = 0.5X^{RSA} + 0.5X^{REST}$$

Any number of scenarios could achieve a SADC block target of 6 percent. For example, if South Africa had an inflation rate of 0 percent and the rest of SADC had an inflation rate of 12 percent, or if the rest of SADC had an inflation rate of 3 percent and South Africa had inflation of 9 percent, SADC as a block would achieve 6 percent inflation. Thus, with a SADC block target using the unweighted average, individual country performance is indeterminate. In both of these cases the weighted average inflation rate for SADC is 6 percent, so convergence condition 2 is met.

To assess whether this strategy meets condition 1, we looked at the relative deviation from the average of the groupings of countries. In the first scenario, South Africa would have a divergence indicator of –6, and the rest of SADC +6. That is, the range of divergence would be from –6 to 6 (a distance of 12). In the second case, the range would be from –3 (rest of SADC) to +6 (a distance of 9). So in general there is no guarantee that condition 1 will be met.

As when using the weighted average, block targeting can give countries an incentive to free ride on the good performance of others. If one grouping undershoots the block target, the other grouping has the opportunity to overshoot the target. For example, with a block target of 6 percent, if inflation in the rest of SADC stands at 5 percent, South Africa can have an inflation rate that solves 7 percent, SADC will still meet its inflation target. And if South Africa's inflation stands at 5 percent the rest of SADC can have an inflation rate of 7 percent, and SADC still will meet its inflation target.

The extent to which one grouping can overshoot the target (+1 percent) is the same as for the other. If one grouping undershoots the block target, the other grouping has the opportunity to overshoot the target but the extent of allowed overshooting is the same for both groups; size does not matter with the unweighted average. Table 5-7 shows the free-rider inflation rates using block targets with the unweighted average. The incentive to free ride is no longer related to a country's GDP but is the same (19 percent) for all countries.

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[25] This works only in the sense of requiring disinflation relative to the 2000 level for countries that have extremely high initial inflation rates such as Zimbabwe (55.9 percent), Angola (325 percent), and Democratic Republic of Congo (553.7 percent).

[26] The midpoint of a 3–9 percent range. See Chapter 6, SADC Convergence with Respect to Targets.

Table 5-7. SADC Unweighted Block Targeting and Free-Rider Incentives

Country	Inflation Rate in 2000	Change in Inflation Relative to 2000
Angola	325	- 306.00
Botswana	7.9	11.10
Congo, Dem. Rep.	553.7	- 534.70
Lesotho	6.1	12.90
Malawi	29.6	- 10.60
Mauritius	5.3	13.70
Mozambique	12.7	6.30
Namibia	9.3	9.70
Seychelles	7.6	11.40
South Africa	5.4	13.60
Swaziland	9.9	9.10
Tanzania	6.2	12.80
Zambia	26.1	- 7.10
Zimbabwe	55.9	- 36.90
Average SADC	75.76	-56.76

Note: Each country's unweighted share of SADC GDP is 7.14%, and the free-rider inflation rate for each country is 19.00%.

The countries with serious inflation problems—Angola, Democratic Republic of Congo, Malawi, Zimbabwe and Zambia—all now have free-rider inflation rates of 19 percent. This is a decrease relative to the weighted block target for all high-inflation countries. Moreover, no high-inflation country can increase its inflation rate from the 2000 rate; the unweighted block target implies disinflation across the board. Although not necessarily securing convergence, an unweighted block target is a better disciplining device than a weighted block target.

COMMON TARGETS

Another approach is to pursue a common target for a macroeconomic variable. We analyzed the implications for convergence using both weighted and unweighted averages.

Common Targets Using a Weighted Average

Under a common target each SADC country tries to minimize the following convergence measure:

$$DIV1 = X_j - X^{*SADC},$$

where $X^{SADC} \equiv \sum_{j=1}^{14} \left(\frac{GDP_j}{\sum_{j=1}^{14} GDP_j} \right) X_j$

and X^{*SADC} is the common target for the macroeconomic indicator.

This indicator can be decomposed as

$$DIV1 = X_t - X^{*SADC} = RELDIV1 + DIV1A \tag{5.3}$$

The first term on the right side of equation (5.3) corresponds to convergence measure (5.1) (and condition 1). The second term is defined in the following way:

$$DIV1A = X_t^{SADC} - X^{*SADC} \tag{5.4}$$

The second term correlates to convergence measure (5.2) (and condition 2) in the following way:

$$X_t^{SADC} = DIV1A + X^{*SADC} \tag{5.5}$$

A suitably low level of $DIV1A$, given a common target, implies a suitably low level of X_t^{SADC}.

How does a system of common targets operate in practice? We simulated inflation rates for all SADC countriesm, allowing for the level of inflation in 2000. Disinflation has been calculated as

$$\Delta p = \left[(1-a) + a\left(\frac{p_0}{1000} \right) \right] (p^* - p_0),$$

where p_0 is the initial (2000) inflation rate. If $a = 0$, there is no flexibility and a country reduces its inflation rate straightaway to the target. The higher a, the greater the degree of flexibility (i.e., the greater the role the initial inflation rate is allowed to play). The simulations are based on $a = 0.5$. Inflation moves (in most cases declining) from 2000 levels towards the 6 percent inflation target. Table 5-8 summarizes the results of this simulation.

Table 5-8. Hypothetical Inflation for SADC Using GDP Weights

Country	GDP in 2000 (US$ billion)	Share of SADC GDP (%)	Inflation Rate in 2000 (%)	Hypothetical Disinflation Rate (%)	Hypothetical Inflation Rate in 2006 (%)	Contribution to Hypothetical SADC Inflation (%)
Angola	8.86	4.87	325	- 211.34	113.66	5.54
Botswana	5.03	2.77	7.9	- 0.96	6.94	0.19
Congo, Dem. Rep.	4.48	2.46	553.7	- 425.48	128.22	3.15
Lesotho	0.87	0.48	6.1	- 0.05	6.05	0.03
Malawi	1.67	0.92	29.6	- 12.15	17.45	0.16
Mauritius	4.40	2.42	5.3	0.35	5.65	0.14
Mozambique	3.75	2.06	12.7	- 3.39	9.31	0.19
Namibia	3.44	1.89	9.3	- 1.67	7.63	0.14
Seychelles	0.58	0.32	7.6	- 0.81	6.79	0.02
South Africa	128.01	70.40	5.4	0.30	5.70	4.01
Swaziland	1.40	0.77	9.9	- 1.97	7.93	0.06
Tanzania	9.03	4.96	6.2	- 0.10	6.10	0.30
Zambia	3.24	1.78	26.1	- 10.31	15.79	0.28
Zimbabwe	7.06	3.88	55.9	- 26.34	29.56	1.15
SADC	181.82	NA	37.38		15.37	

Using SADC GDP shares to construct average SADC inflation, inflation in SADC will reach 15.37 percent in 2006 (down from 37.4 percent in 2000). The biggest contributors to SADC inflation are still Angola (5.54 percent, down from 15.8 percent) and the Democratic Republic of Congo (3.15 percent, down from 13.6 percent), but surprisingly, South Africa (4.01 percent) as well. The South African contribution is the result of its huge share in the SADC GDP—this points to an unattractive aspect of using a weighted scheme to construct SADC inflation. In terms of achieving convergence, condition 1 is met: Average inflation in SADC falls from 37.4 percent in 2000 to 15.37 percent in 2006.

Table 5-9 shows the deviation between the hypothetical country inflation rates and the SADC rate.

Table 5-9. Deviation between Individual SADC Countries' Hypothetical 2006 Weighted Inflation and SADC Inflation

Country	Hypothetical Inflation Rate %	Deviation % between Country Rate and SADC Rate (15.37%)	Deviation % between Country Rate and SADC Rate Excluding Dem. Rep. of Congo (12.22%)	Deviation % between Country Rate and SADC Rate Excluding Dem. Rep. of Congo and Angola (6.68 %)
Angola	113.66	98.29	101.45	NA
Botswana	6.94	- 8.43	- 5.27	0.26
Congo, Dem. Rep.	128.22	112.85	NA	NA
Lesotho	6.05	- 9.32	- 6.17	- 0.63
Malawi	17.45	2.08	5.23	10.77
Mauritius	5.65	- 9.72	- 6.57	- 1.03
Mozambique	9.31	- 6.06	- 2.91	2.63
Namibia	7.63	- 7.74	- 4.58	0.95
South Africa	5.70	- 9.67	- 6.52	- 0.98
Seychelles	6.79	- 8.58	- 5.42	0.11
Swaziland	7.93	- 7.44	- 4.29	1.25
Tanzania	6.10	- 9.27	- 6.12	- 0.58
Zambia	15.79	0.42	3.57	9.11
Zimbabwe	29.56	14.18	17.34	22.87

The deviation now ranges from –9.72 to 112.85, a distance of 122.57. Under discretionary national targeting (for both the weighted average and unweighted average), the deviation ranged from –32.08 to 516.32, a distance of 548.4.

Common Targets Using Unweighted Average

We also calculated common targets using the unweighted average. Table 5-10 summarizes these calculations.

Table 5-10. Hypothetical 2006 Inflation for SADC with Unweighted Average

Country	Inflation Rate in 2006 (%)	Contribution to SADC Inflation (%)
Angola	113.66	8.12
Botswana	6.94	0.50
Congo, Dem. Rep.	128.22	9.16
Lesotho	6.05	0.43
Malawi	17.45	1.25
Mauritius	5.65	0.40
Mozambique	9.31	0.66
Namibia	7.63	0.55
Seychelles	6.79	0.49
South Africa	5.70	0.41
Swaziland	7.93	0.57
Tanzania	15.79	0.44
Zambia	6.10	1.13
Zimbabwe	29.56	2.11
SADC	26.20	

Note: Each country's unweighted share of SADC GDP is 7.14%.

If we use symmetrical shares to calculate average SADC inflation, inflation is 26.20 percent. The biggest contributors to SADC inflation are still Angola (8.12 percent) and the Democratic Republic of Congo (9.16 percent). This weighting scheme does not exaggerate South Africa's inflation rate as the weighted average does. Convergence condition 2 is met: Average inflation in SADC moves toward the target, falling to 26.20 percent from 75.6 percent in 2000.

Table 5-11 shows the deviation between the hypothetical country inflation rates and the SADC rate using the unweighted average.

Table 5-11. Deviation between SADC Countries' Hypothetical 2006 Unweighted Inflation and SADC Inflation

SADC	Hypothetical Inflation Rate	Deviation from SADC Rate (26.20%)	Deviation from SADC Rate Excluding Dem. Rep. of Congo (17.04%)	Deviation from SADC Rate Excluding Dem. Rep. of Congo and Angola (8.92%)
Angola	5.54	87.46	96.62	NA
Botswana	0.19	- 19.26	- 10.10	- 1.98
Congo, Dem. Rep.	3.15	102.02	NA	NA
Lesotho	0.03	- 20.15	- 10.99	- 2.87
Malawi	0.16	- 8.75	0.41	8.53
Mauritius	0.14	- 20.55	- 11.39	- 3.27
Mozambique	0.19	- 16.89	- 7.73	0.39
Namibia	0.14	- 18.56	- 9.41	- 1.29
Seychelles	0.02	- 19.41	- 10.25	- 2.13
Swaziland	0.06	- 18.27	- 9.11	- 0.99
South Africa	4.01	- 20.50	- 11.34	- 3.22
Tanzania	0.30	- 20.10	- 10.94	- 2.82
Zambia	0.28	- 10.41	- 1.25	6.87
Zimbabwe	1.15	3.36	12.51	20.63

The deviation ranges from –20.55 to 102.02—a distance of 122.57. (Under discretionary national targeting, the distance was 548.4). This strategy also meets condition 1 because the deviation is so much narrower than before.

Evaluation of Targeting Strategies

A targeting strategy is defined as transparent if it is simple and can be easily explained. Table 5-12 ranks the transparency of the targeting strategies and summarizes the evaluation of the targeting strategies considered.

Table 5-12. Evaluation of Targeting Strategies

Targeting Strategy	Deviation Distance	SADC Average Inflation Rate %	Meets condition 1? (2 points)	Meets condition 2? (2 points)	Transparent? (1 point)	Score
Discretionary national targets using weighted average	548.4	37.4	No	No	No	**0**
Discretionary national targets using unweighted average	548.4	75.6	No	No	No	**0**
SADC block target using weighted average	NA	15.37	?	Yes	No	**2**
SADC block target using unweighted average	NA	26.20	?	Yes	Yes	**3**
Common targets using weighted average	122.57	15.37	Yes	Yes	No	**4**
Common targets using unweighted average	122.57	26.20	Yes	Yes	Yes	**5**

a. Recalculated allowing for the same (average) degree of flexibility as that used to compute the common targets strategies.

b. The sum of the scores of columns 1–3.

The worst strategy is discretionary national targeting using the weighted average of the member states. Although a bit more transparent, discretionary national targeting using the unweighted average of member states also does not meet conditions 1 and 2.

SADC block targeting does not achieve convergence, or at least cannot be said to guarantee convergence. It is better, however, than discretionary national targeting because it does meet condition 2. Neither weighted nor unweighted block targeting is a good candidate because divergence is indeterminate.

Next in the ratings are weighted and unweighted block targeting.-A good strategy, although not very transparent, is common targeting using the weighted average.

The best strategy is unweighted common targeting. This strategy achieves convergence and is also highly transparent. It has the best chance of fostering macroeconomic convergence in SADC.

6. SADC Convergence with Respect to Targets

After the results of our preliminary analysis of convergence in SADC in Chapters 3 and 4 and our analysis of targeting strategies in Chapter 5, we want to obtain some additional insight into macroeconomic performance and convergence in SADC. To do so, in this chapter we will examine the convergence of macroeconomic indicators with the following targets:

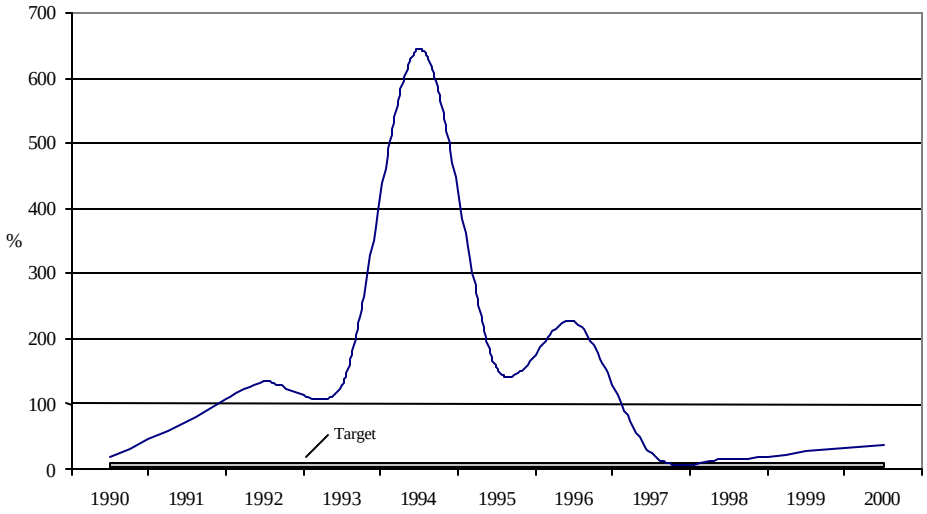
- For CPI inflation, a rate in the 6–9 percent range
- For budget deficit, a ratio of deficit to GDP in a range of -3 to +3 percent
- For debt, a ratio of net present value of public or publicly guaranteed debt to GNI of 40 percent or lower
- For current account, a deficit as percentage of GDP no greater than 6 percent.

SHAPSHOT OF CONVERGENCE WITH RESPECT TO TARGETS

Inflation and Budget Deficit

Figure 6-1 shows SADC inflation compared to the target—a rate of between 3 and 9 percent—indicated by the shaded area.

Figure 6-1. Comparison of Inflation in SADC to Target Range



For SADC as a whole no inflation convergence can be observed. SADC appears to be close to the target range in 1997, but this is an illusion of scale—the average inflation rate was 24.6 percent.

Figure 6-2 shows inflation in SADC excluding Democratic Republic of Congo compared to the target range and Figure 6-3 shows inflation in SADC excluding both Democratic Republic of Congo and Angola compared to the target range.

Figure 6-2. Comparison of Inflation in SADC Excluding Dem. Rep. of Congo to Target Range

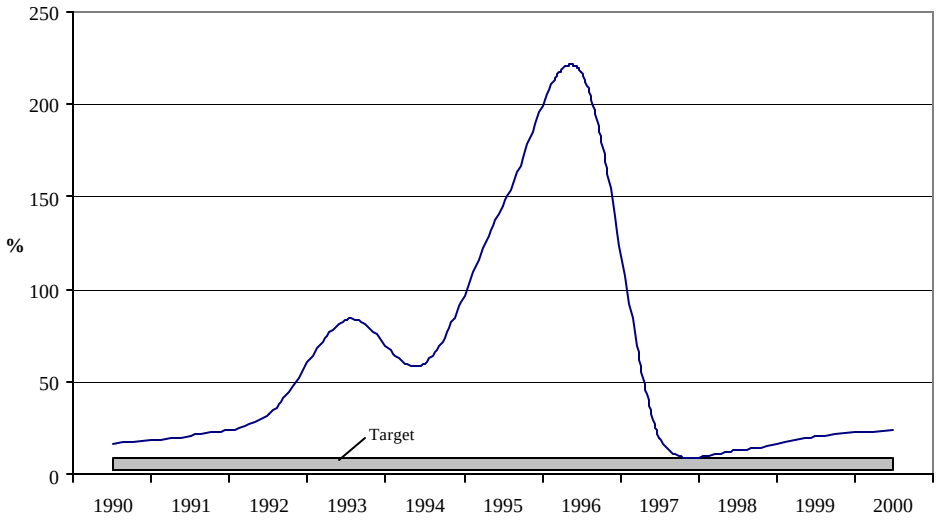
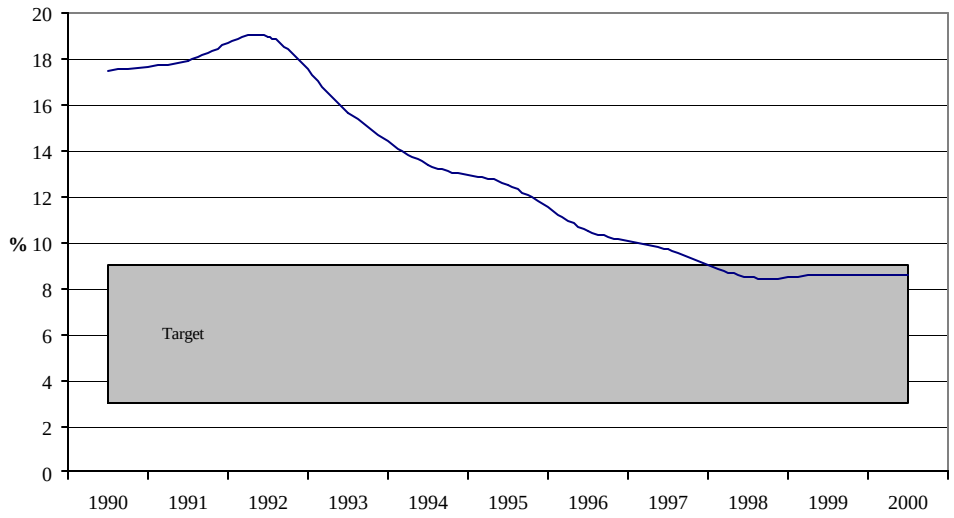


Figure 6-3. Comparison of Inflation in SADC Excluding Dem. Rep. of Congo and Angola to Target Range

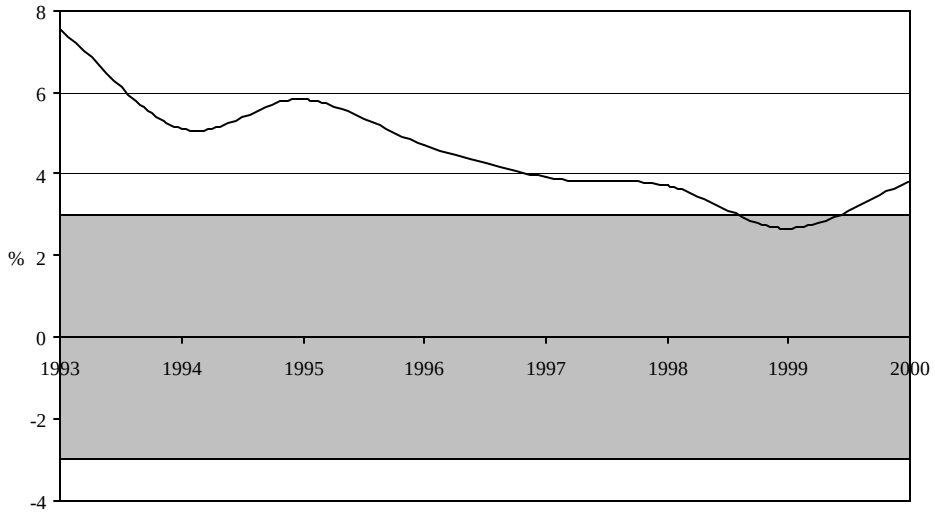


Only when both Democratic Republic of Congo and Angola are excluded from the SADC group can convergence to the target range be seen clearly, from 1992 onwards, and the target range is achieved from 1998 onwards.

For budget deficits, the target range is -3 to +3 percent, an acceptable fiscal balance. The higher bound of the range (3 percent) corresponds to the criterion for budget deficit that the European countries had to meet to join the European Monetary Union.

Figure 6-4 compares the SADC budget deficit to the target, indicated by the shaded area. SADC is reasonably close to meeting the target over most of the period and achieves the target in 1999 (but not in 2000).

Figure 6-4. Comparison of Budget Deficit in SADC to Target Range



SADC's fiscal performance is good relative to the target. But inflation performance is less rosy, largely as a result of the contributions of Angola and Democratic Republic of Congo. However, SADC excluding Angola and Democratic Republic of Congo is doing well on both counts.

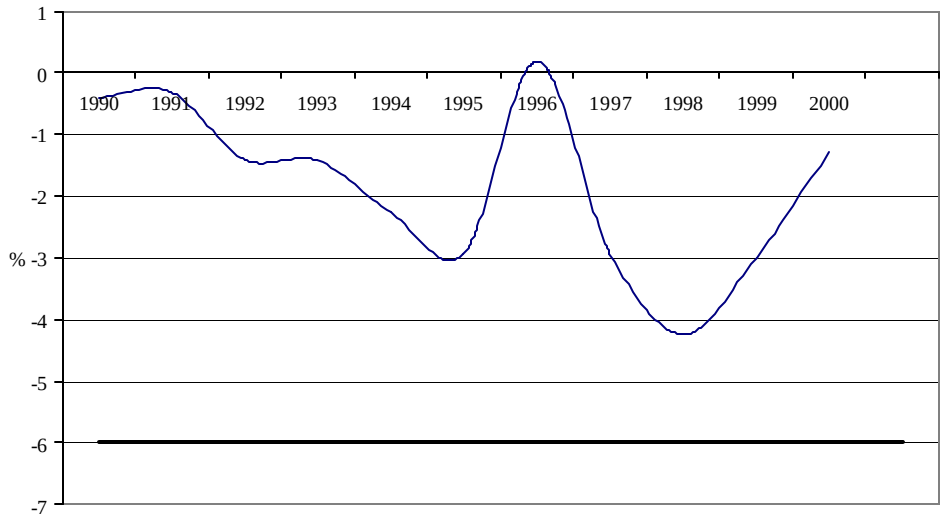
Debt and Current Account

For debt and current account we did not define the target as a range (as we did for inflation and budget deficits), but rather as a maximum acceptable level, or upper limit. For indebtedness, we set a target of 40 percent for the NPV of debt (as a percentage of GNI). The current account deficit must be less than 6 percent of GDP.

The NPV of debt as a percentage of GNI stood at 41.19 percent for SADC as a whole in 2000. SADC does not meet the target of 40 percent, but neither is it far off.

Figure 6-5 shows the current account situation in SADC compared to the target. The horizontal line indicates the target for the current account deficit. SADC as a group has no trouble meeting the target. Although SADC meets the target over the entire period, there is a caveat: The SADC figure is an average of a group of countries. Because the current account is cyclical in each country—it tends to swing around a fixed level—it is possible that we aggregated countries that are in different phases. This means that a country that has a low current account deficit (or even a surplus) at a given time may affect the larger picture. We will examine the performance of individual countries. However, it is clear that the aggregate SADC current account is cyclical.

Figure 6-5. Comparison of SADC Current Account Balance to Target (% GDP)



SADC as a whole performs well in terms of its external position (it meets the target by a wide margin), but not in terms of indebtedness (it fails to meet the target by 1.19 percentage points

CONVERGENCE MEASURES USING TARGETS

To assess the convergence of macroeconomic indicators more accurately than in the previous section, we also used the convergence measures defined in Chapter 4 to measure SADC convergence to the targets we set for macroeconomic stability. Table 6-1 (identical to Table 4-1) summarizes the relationships among the equations we used for measuring convergence.

Table 6-1. Convergence Measures for Macroeconomic Indicators

$DIV1A = X^{A}_{2000} - C_{2000}$	(4.1)	$DIV2A = \frac{1}{T}\sum_{i=1}^{T}(X_i^{A} - C_{2000})$	(4.2)
$RELDIV1 = X_{2000} - X^{A}_{2000}$	(4.3)	$RELDIV2 = \frac{1}{T}\sum_{i=1}^{T}\left(X_i - X_i^{A}\right)$	(4.4)
+		+	
$DIV1 = X_{2000} - C_{2000}$	(4.5)	$DIV2 = \frac{1}{T}\sum_{i=1}^{T}\left(X_i - C_{2000}\right)$	(4.6)

Assessment of Inflation and Budget Deficit Convergence in SADC

SADC as a Whole Compared to Targets

We compared inflation and budget deficits for the year 2000 in SADC to the targets using the convergence measure in equation (4.1):

$$DIV1A = X^{A}_{2000} - C_{2000} \tag{4.1}$$

where X^{*SADC} is the midpoint of the relevant target range.
We also made these comparisons for current account for the period 1990–2000 using equation (4.2):

$$DIV2A = \frac{1}{T}\sum_{i=1}^{T}(X^{A}_{i} - C_{2000}) \tag{4.2}$$

where $i = 1,2..T$.[27]

A higher inflation rate or budget deficit in the SADC region than the midpoint of the target range is bad (positive numbers are bad), and negative numbers indicate that SADC is outperforming the midpoint target (hereafter simply called point target). A certain amount of flexibility is allowed. If the positive numbers for inflation and deficits remain smaller than 3, the country is diverging from its point targets but are still within the range of acceptable outcomes. Similarly, a country, while outperforming its point targets, can still be within the target ranges. This is the case if the negative numbers remain greater than - 3. Table 6-2 summarizes the comparisons of SADC as a whole to the convergence targets.

Table 6-2. Comparisons between SADC as a Whole and Convergence Targets for Inflation and Budget Deficit (% Deviation)

Time Period	Grouping	Inflation	Budget Deficit
2000	SADC	31.4	3.8
	SADC excluding Democratic Republic of Congo	18.4	N/A
	SADC excluding Democratic Republic of Congo and Angola	2.6	N/A
Range of Years	SADC	129.0	4.7
(1993–2000 for Budget Deficit)	SADC excluding Democratic Republic of Congo	53.7	NA
(1990–2000 for Inflation)	SADC excluding Democratic Republic of Congo and Angola	6.9	NA

In 2000, SADC as a whole does not compare well to the target in terms of inflation (31.4 percent difference) but does in terms of budget deficit (3.8 percent). However, if Angola and Democratic Republic of Congo are excluded, both inflation and budget deficit compare well with the target.

The effects of hyperinflation in the earlier years push the 1990–2000 measure to 129.0 percent. When some countries are excluded, the comparison becomes more favorable—53.7 if Democratic Republic of Congo is excluded, and 6.9 if both Democratic Republic of Congo and Angola are

[27] T is 8 for deficits (1993–2000) and 11 for inflation and current account deficits (both 1990–2000).

excluded. Thus, in terms of inflation, SADC performed better in 2000 than on average during the 1990–2000 period.

The deviation for budget deficit for 1993–2000 is higher (4.7 percentage points) than for 2000 (3.8 percent). We can conclude that budget deficits of SADC countries in 2000 were not representative of those over a longer time.

To summarize, SADC performed worse than both targets, but more so with respect to inflation. This is true even when the two countries with hyperinflation are excluded.

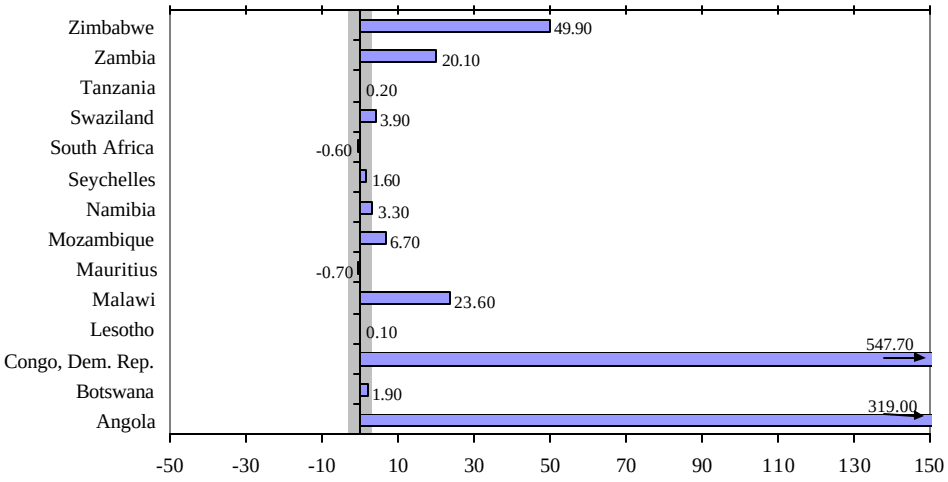
Individual SADC Countries' Inflation and Budget Deficits in 2000 Compared to Targets

We used equation (4.5) to determine the deviation as a percentage between individual SADC countries' inflation rates and budget deficits and the targets:

$$DIV1 = X_{2000} - C_{2000} = RELDIV1 + DIV1A \tag{4.5}$$

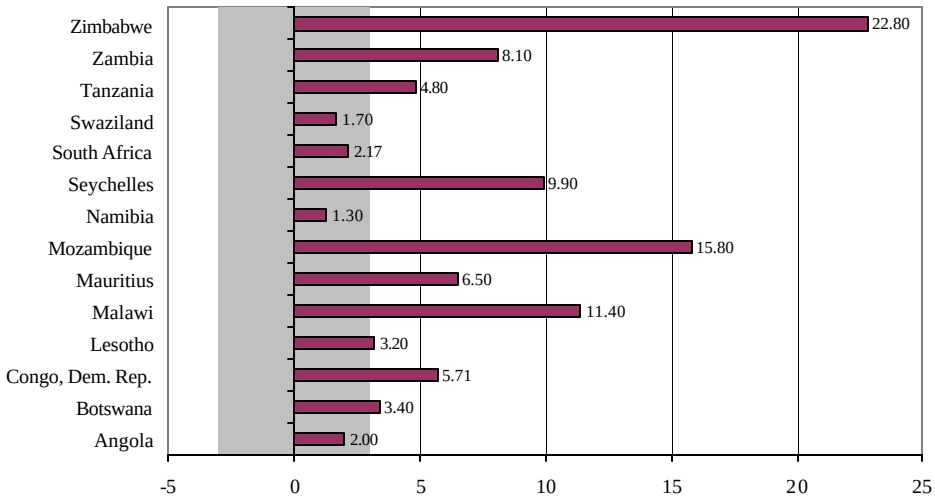
It is the sum of equations (4.1) and (4.3). Results for inflation and budget deficits can be found in Figures 6-6 and 6-7.

Figure 6-6. Inflation of SADC Countries in 2000 Compared to Point Target



As expected, Democratic Republic of Congo (547.7) and Angola (319.0) do not compare well to the inflation target. Other countries that performed worse than the inflation target are Zimbabwe (49.9), Malawi (23.6), Zambia (20.1), and Mozambique (6.7). Two countries are relatively close to the target: Swaziland (3.9) and Namibia (3.3). The remaining countries, the Seychelles (1.6), Tanzania (0.2), Botswana (1.9), South Africa (-0.6), Mauritius (-0.7) and Lesotho (0.1) have inflation figures for 2000 that fall within the target range.

Figure 6-7. Budget Deficits of SADC Countries in 2000 Compared to Point Target



With respect to fiscal performance, the picture is different. Here, we find no radical outliers as we do with inflation, but fewer countries meet the target range (four). Countries showing substantial divergence from the target are Zimbabwe (22.8), Mozambique (15.8), Malawi (11.4), the Seychelles (9.9), Zambia (8.1), Mauritius (6.5) and Democratic Republic of Congo (5.7). Relatively close to the target range are Tanzania (4.8), Botswana (3.4) and Lesotho (3.2). Four countries meet the target in terms of budget deficits: Swaziland (1.7), South Africa (2.1), Namibia (1.3) and Angola (2).

Only South Africa met both target ranges (for inflation and the budget deficit). Other countries in SADC that performed relatively well are Namibia and Swaziland, which met the fiscal target range and approached the inflation target range. Tanzania and Botswana performed well on inflation and not badly on budget deficit, while Lesotho met the inflation target and came very close to the fiscal target. In other cases, if a country met one target, it performed poorly on the other. Finally, Zimbabwe, Zambia, Mozambique, Malawi and Democratic Republic of Congo performed poorly on both counts.

Table 6-3 summarizes the relative positions of SADC countries in 2000 with respect to the target

Table 6-3. Position of SADC Countries in 2000 Relative to Target

	Meets inflation target (3–9 percent)	Fails to meet inflation target
Meets fiscal target	South Africa	Angola Namibia Swaziland
Fails to meet fiscal target	Mauritius Tanzania Botswana Lesotho Seychelles	Congo, Dem. Rep. Mozambique Malawi Zambia Zimbabwe

We also briefly examined the differences in findings between the comparisons made in Chapter 4 between SADC countries and the SADC average (see Figures 4-1 through 4-4) and the comparisons to the targets we just analyzed. There is no difference for inflation: All countries scoring better than the SADC average also met the target, and all countries scoring worse than average failed to meet the target. The upper bound of the target range of 9 percent is slightly higher than the SADC average of 8.6 percent, but no worse-than-average country met the target. For fiscal balances, the 3 percent upper bound of the target range is more stringent than the SADC average (3.8 percent). Both Botswana and Lesotho scored better than average and still failed to meet the target.

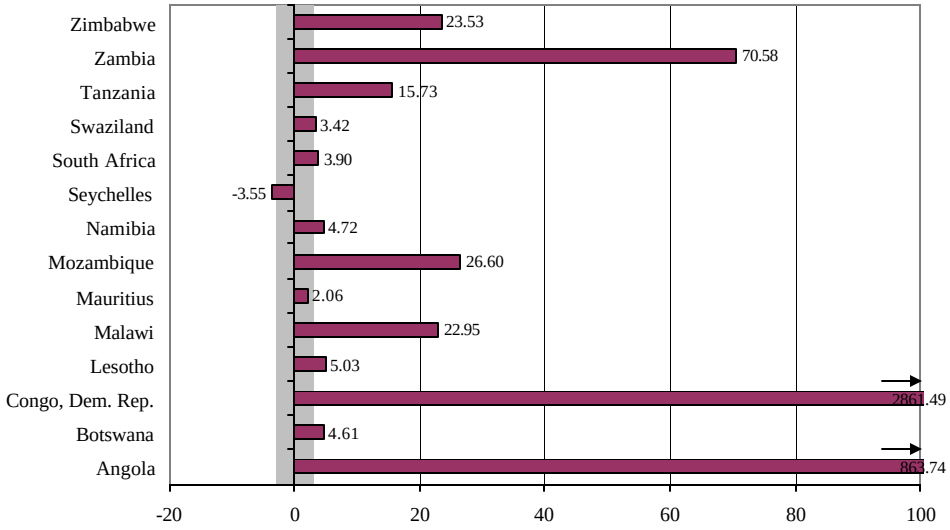
Individual SADC Countries for Range of Years Compared to Targets

Next we examined the economic performance of SADC countries over a range of years (1990–2000 for inflation and 1993–2000 for budget deficits) and compared the countries' macroeconomic indicators with the targets for 2000 using equation (4.6):

$$DIV2 = \frac{1}{T}\sum_{i=1}^{T}\left(X_i - C_{2000}\right)$$

Figure 6-8 illustrates the results of the measures.

Figure 6-8. Inflation in SADC Countries 1990–2000 Compared to Target



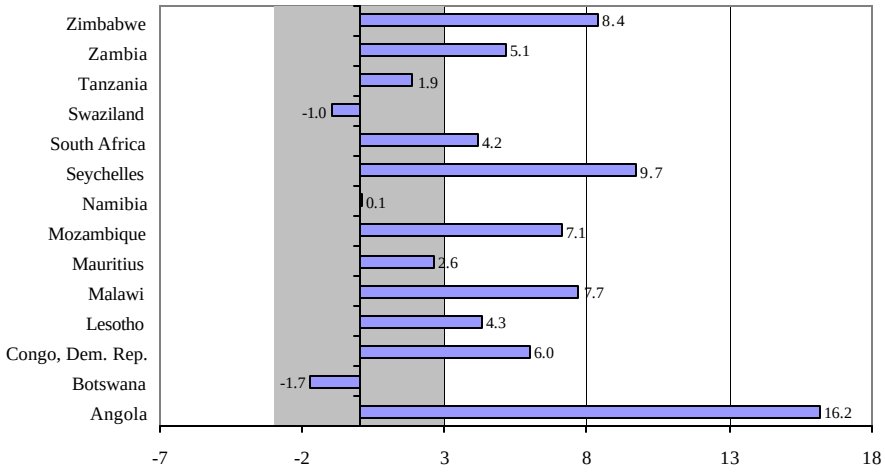
In Figure 6-8, inflation falls within the target range for only one country—Mauritius (2.1 percent deviation). However, the Seychelles (-5.2) is in the unusual position of missing the target range because its inflation was too low.[28] Countries that come relatively close to meeting the benchmark are South Africa (3.9), Swaziland (3.4) and Mauritius (2.1). Furthermore, Namibia (4.7), Botswana (4.6), and Lesotho (5) are not far off. For other countries, the picture is far from positive. Apart from the countries with hyperinflation (Democratic Republic of Congo and Angola) that compare very

28 The Seychelles' average annual inflation rate over the period was 2.45 percent. It experienced a number of years with deflation (negative inflation).

unfavorably with the target, four more countries score more than 20 percent worse than the point target: Malawi (23), Mozambique (26.7), Zambia (70.6), and Zimbabwe (23.5).

For fiscal balances (Figure 6-9) we determined which countries met the target on average over the longer period (1993–2000). Five SADC countries succeeded in this: Botswana (-1.7), Mauritius (2.6), Namibia (0.1), Swaziland (-1), and Tanzania (1.9). Countries that are not far from meeting the target are South Africa (4.2) and Lesotho (4.3). Several countries in SADC, however, did not come close to meeting the target over a longer period.

Figure 6-9. Budget Deficit in SADC Countries 1990–2000 Compared to Target



Over the longer periods, more countries met the budget-deficit target than for 2000, but for inflation, over the longer periods, only one country met the target while four did for 2000. Only Mauritius met both the deficit and the inflation targets for the longer period.

Table 6-4 summarizes the findings for the measure for the longer period, also indicating changes to classifications of countries when moving from 2000 to the longer period. The arrows show that the effect of using a longer period of analysis is mostly to reduce the successes of the SADC countries in meeting the macroeconomic performance targets. Only Mauritius has unambiguously better results over the longer period, while Botswana and Tanzania have better results for budget deficits but worse for inflation over the longer period.

Table 6-4. Position of SADC Countries for Range of Years Relative to Target

	Meets inflation target (3 to 9 percent inflation)	Fails to meet inflation target
Meets fiscal target	Mauritius	Namibia Swaziland Tanzania Botswana
Fails to meet fiscal target		Congo, Dem Rep. Mozambique South Africa Zambia Zimbabwe Malawi Angola Lesotho Seychelles

We also compared the results of the measure for the deviation from the target for the range of years to the deviation from the SADC average for the range of years (calculations in terms of SADC average are in Chapter 4; see Figures 4-4 through 48). Differences arise because the SADC averages for both macroeconomic indicators are less stringent than the targets. For inflation, the SADC average (excluding Democratic Republic of Congo and Angola) is 12.9 percent[29] and the upper bound of the target range is 9 percent. SADC countries that have above-average performance among SADC members but fail to achieve the target inflation (on average over the period) are Botswana, Lesotho, South Africa, Swaziland, Namibia, and Mauritius. The Seychelles also falls into this category because its inflation in 2000 is low but it fails to meet the target range over the longer period because its average inflation is too low. For fiscal balances the target's upper bound (3 percent) is also stringent compared to the SADC average for the period (4.65 percent). Lesotho and South Africa are both above-average SADC performers, but do not meet the target.

Assessment of Public Debt and Current Account Convergence in SADC

Individual SADC Countries Compared to Current Account and Debt Targets

We also calculated the deviation between a country's debt and current account and their targets in percentage points using equation (4.5). This is the position of each individual SADC country vis-à-vis the target is the sum of its individual position within the regional SADC economy and the position of SADC as a whole relative to the target. Figures 6-10 and 6-11 show the comparisons for debt and current account.

[29] If Democratic Republic of Congo and Angola had been included, the average inflation would have amounted to 135.04 percent.

Eight countries failed to keep debt below the 40 percent target. Of these, four have particularly high debt levels: Zambia, Malawi, Democratic Republic of Congo, and Angola. The other SADC countries have debt levels that comply with the target and therefore should be manageable. Botswana and Namibia have particularly low levels of debt.

Figure 6-10. Debt in SADC Countries Compared to Target for 2000 (as % of GNI)

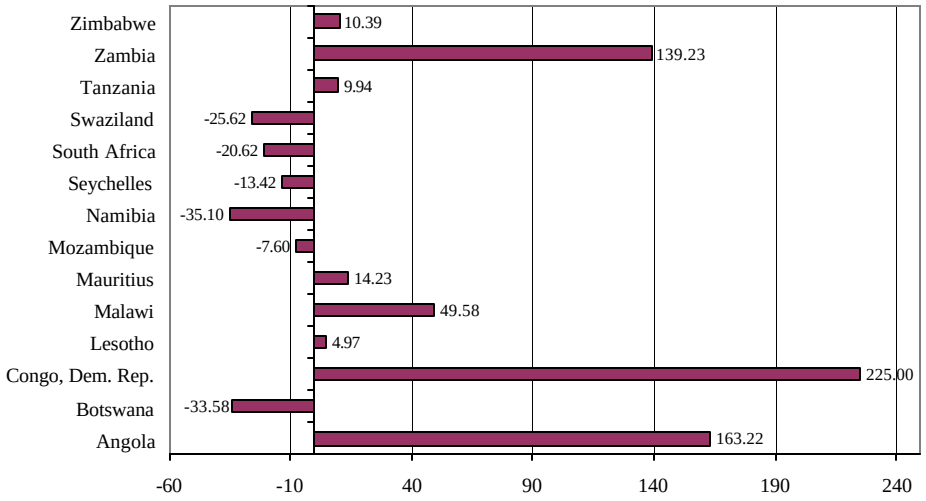
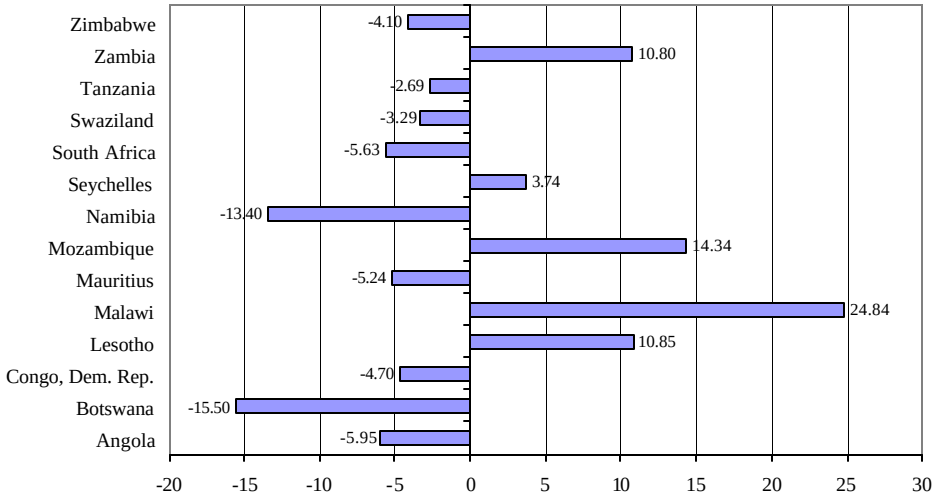


Figure 6-11. Current Accounts of SADC Countries Compared to Target for 2000 (as % of GDP)



With respect to the current account, five countries cause concern because of the high deficits in their current account in 2000. Moreover, all these countries missed the mark by a wide margin: Zambia by 10.8 percent, the Seychelles by 3.7, Mozambique by 14.3, Malawi by 24.8, and Lesotho by 10.9 percent. All the other countries met the performance target, falling within comfortable bounds. Their external position in 2000 did not appear to be a source of instability to themselves or SADC.

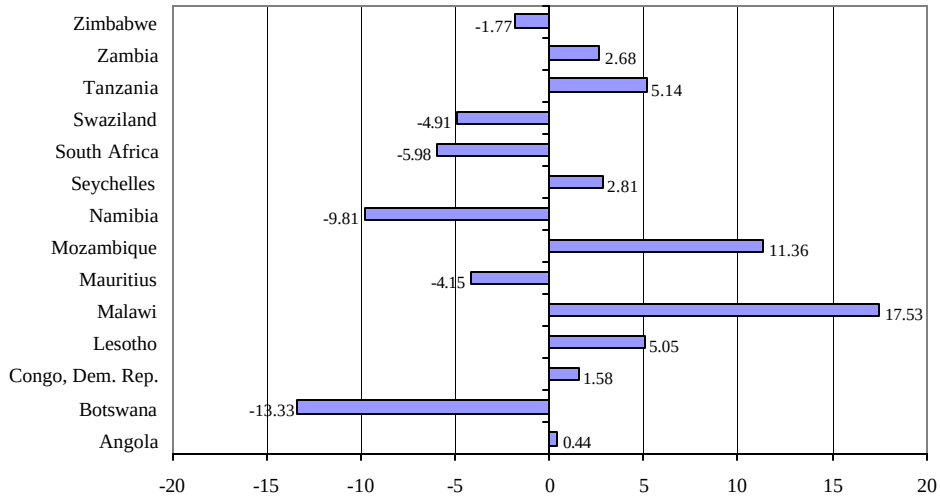
The only countries that outperformed the targets with respect to both the current account and debt are Botswana, Namibia, South Africa, and Swaziland. Zambia, Malawi, and Lesotho performed worse than the targets for both the current account and the debt.

Individual SADC Countries 1990–2000 Compared to Target

We applied the convergence measure in equation (4.6) to determine current account performance for the period 1990–2000, contrasting the average current account deficit over that period with the 2000 convergence level. Figure 6-12 shows the results of these calculations.

The findings are interesting, because three countries—Tanzania, Democratic Republic of Congo, and Angola—had very positive results for 2000, but over a longer period failed to meet the target. Namibia and Botswana, which had large current account surpluses in 2000, had a similar performance on average over the whole period. Apart from Tanzania, Democratic Republic of Congo, and Angola there is remarkably little difference between the two measures for this indicator.

Figure 6-12. Current Accounts of SADC Countries 1990–2000 Compared to Target (as % of GDP)



Summary of Target Analysis

Table 6-5 summarizes the state of convergence of SADC in relation to the targets we set.

Table 6-5. State of SADC Convergence of Macroeconomic Stability Indicators with Respect to Targets

Country	Inflation[a]	Budget Deficit[b]	Current Account[a]	Debt[c]
Angola				
Botswana		✓	✓	✓
Democratic Republic of Congo				
Lesotho				
Malawi				
Mauritius	✓	✓	✓	
Mozambique				✓
Namibia		✓	✓	✓
Seychelles				✓
South Africa			✓	✓
Swaziland		✓	✓	✓
Tanzania		✓		
Zambia				
Zimbabwe			✓	

✓— Meets the target.

[a] For 1990–2000

[b] For 1993–2000

[c] for 2000

7. Availability of Data for SADC Countries

In this chapter we present a preliminary analysis of the availability of SADC member countries' data and their participation in the IMF General Data Dissemination System (GDDS). This discussion lays the groundwork for a more detailed discussion in Phase II.

CRITERIA FOR DATA QUALITY

Statistics for the convergence program must be based on data that are available, relevant, accurate, timely, accessible, easy to interpret and coherent[30] (see Table 7-1). Availability is the attribute most easily measured externally. Other criteria are best measured internally and so require the country visits planned for Phase II.

Table 7-1. Criteria for Data Quality

Criterion	Description
Availability	The degree to which data meet an information requirement
Relevance	The degree to which data meet the real needs of clients—whether the available information sheds light on the issues of most importance to users
Accuracy	The degree to which the information correctly describes the economies of member states
Timeliness	The delay between the reference point to which the information pertains and the date on which the information becomes available, influencing its relevance, and typically involving a tradeoff against accuracy
Accessibility	The ease with which data can be obtained from member states
Interpretability	The availability of the supplementary information and metadata necessary to interpret and use the data
Coherence	The degree to which data can be brought together with statistical information within a broad analytic framework over time

DATA AVAILABILITY

Data availability is measured by the extent to which data are published by the World Bank.[31] We use this as a proxy answer to the question of whether member states have produced these data. We

[30] Adapted from G. Brackstone. (1999) Managing Data Quality in a Statistical Agency. *Statistics Canada, Survey Methodology*, Catalogue No. 12-001-XPB, Vol. 25 No 2, December.

[31] The data source is the World Development Indicators database. We did not work with IMF data in this chapter because the IMF data we worked with elsewhere in the report (from the WEO database) include only

assume that availability of World Bank data correlates to availability of data at the national level. Some data not available from the World Bank, however, are expected to be available from the member state. Availability is measured according to

- The latest year for which data are available—countries' current provision of statistical information—and
- The number of years for which data are available—required for discussing trends.

We assess the availability of the following data categories from the World Bank:

- Gross domestic product (GDP)
  - Constant local currency units (LCU)
  - Current LCUs
  - Constant LCUs per capita
- Inflation rate
  - Consumer price index (CPI) (1995=100
  - Inflation, GDP deflator
- Balance of payments
  - Current account balance as a percentage of GDP
  - External balance on goods and services in LCUs
  - Net income from abroad in constant LCUs.[32]
- Debt. All the countries have figures on external indebtedness for 2000 only. Measures of internal indebtedness are not available from the World Bank.
- Government deficit
  - Current government expenditure
  - Current government revenue
  - Interest payments as a percentage of government expenditure
  - Budget deficit, including grants.

Table 7-2 shows which data are lacking from which countries. Countries not in the table have complete data sets.

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inflation and GDP, and the World Bank series are complete for all SADC countries, including Democratic Republic of Congo, from 1980 to 2000.

[32] Table 7-9 shows the number of years for which current account figures are available.

Table 7-2. Years for which Data are Unavailable, by Country

Country	GDP	Inflation			Balance of Payments			Budget Deficit		
	All Series	CPI	Inflation, GDP deflator	Current account balance	External balance on goods and services	Net income from abroad	Current expenditure)	Current revenue, excluding grants	Interest payments	Overall budget deficit, including grants
Angola							1975–2000	1975–2000	1975–2000	1975–2000
Botswana				2000	2000		1997–2000	1997–2000	1997–2000	1997–2000
Congo, Dem. Rep.	1998–2000	1998–2000	1999, 2000	1999, 2000	1998–2000	1999, 2000	1999–2000	1999–2000	1999–2000	1999–2000
Lesotho							1999–2000	1999–2000	1999–2000	1999–2000
Malawi							1991–2000	1991–2000	1991–2000	1991–2000
Mozambique		1999					1975–2000	1975–2000	1975–2000	1975–2000
Namibia		2000		2000	2000					
Tanzania							1986–2000	1986–2000	1986–2000	1986–2000
Zambia		1998–2000		1992–2000			1989–2000	1989–2000	1983–2000	1989–2000
Zimbabwe		2000		1995–2000			1998–2000	1998–2000	1998–2000	1998–2000

Table 7-2 shows that four SADC countries lack CPI data for 2000.[33] The Democratic Republic of Congo has lacked figures on inflation since the mid-1990s. Fiscal data are available only from the early 1990s and the 1980s for Tanzania (no data since 1985), Zambia (no data since 1988), and Malawi (no data since 1990).[34] Table 7-3 shows the number of years for which data are available.

Table 7-3. Number of Observations Available for Budget Deficits for Countries with Missing Data

Country	Current expenditure (current LCU)	Current revenue, excluding grants (current LCU)	Interest payments (% of total expenditure)	Overall budget deficit, including grants (current LCU)
Angola	0	0	0	0
Lesotho	19	19	15	16
Mozambique	0	0	0	0
Tanzania	7	10	7	7
Zambia	13	13	7	13

The table shows that a number of countries have missing data. Neither Angola nor Mozambique has published any data on budget deficits. The countries with missing data are Tanzania (all series except current revenue), Zambia (interest payments), Namibia, Angola (all the series), and Mozambique (all the series).

SUMMARY OF DATA AVAILABILITY

To create an index of data availability, we assigned points for lacking data. Countries gain one point for every year before 2000 that a data point is missing from the World Bank database. For example, if a country has data only up to 1998 for CPI it receives 2 points. The NPV of debt is excluded from the analysis because all countries have the same number of data points missing. Table 7-4 summarizes the points assigned to countries. More data are missing for budgetary issues than for other categories of data. The Democratic Republic of Congo is missing data across all categories. Table 7-5 ranks countries by how many data are missing; Table 7-6 groups countries, with Group 1 receiving no penalty points; Group 2 receiving between one and 20 points,[35] and Group 3 receiving more than 20 points.

[33] Table 7-8 shows the number of observations for the series relevant to inflation.

[34] Botswana, Democratic Republic of Congo, Lesotho and Zimbabwe have only budgetary data since the late 1990s.

[35] The Democratic Republic of Congo is excluded from Group 2 because it has data missing across all the series.

Table 7-4. Data Unavailability Points

Country	GDP	Inflation	Balance of Payments	Budgetary Issues	Total
Angola				40	40
Botswana			2	16	18
Congo, Dem. Rep.	2	5	7	8	22
Lesotho				8	8
Malawi				40	40
Mauritius					0
Mozambique		1		40	41
Namibia		1	2		3
Seychelles					0
South Africa					0
Swaziland					0
Tanzania				32	32
Zambia		3	9	32	44
Zimbabwe		1	6	12	19
Total for SADC	2	11	26	228	267

Table 7-5. Data Unavailability Index

Country	Total for All Categories	Average Index for SADC	Deviation from the Average	Number of Series from which Data Are Missing
Zambia	44	19.07	24.9	6
Mozambique	41	19.07	21.9	5
Angola	40	19.07	20.9	4
Malawi	40	19.07	20.9	4
Tanzania	32	19.07	12.9	4
Congo, Dem. Rep.	22	19.07	2.9	10
Zimbabwe	19	19.07	-0.1	6
Botswana	18	19.07	-1.1	6
Lesotho	8	19.07	-11.1	4
Namibia	3	19.07	-16.1	3
Mauritius	0	19.07	-19.1	0
Seychelles	0	19.07	-19.1	0
South Africa	0	19.07	-19.1	0
Swaziland	0	19.07	-19.1	0

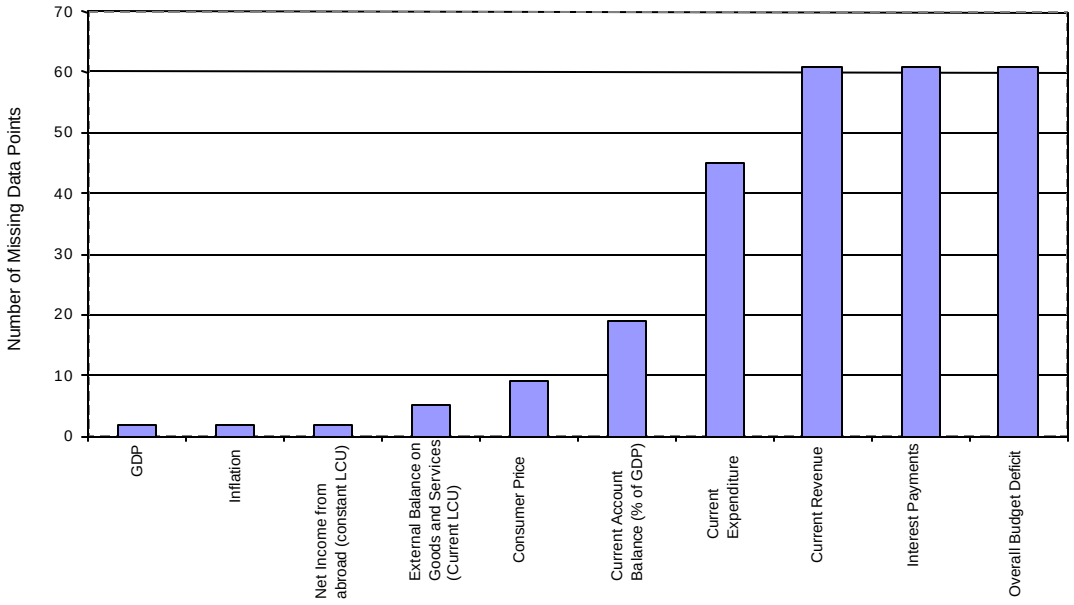
Table 7-6. Data Availability Groupings

Group 1. No Missing Data	Group 2. Most Data Series Available	Group 3. Very Little Data Available
Mauritius	Botswana	Tanzania
Seychelles	Lesotho	Zambia
South Africa	Namibia	Malawi
Swaziland	Zimbabwe	Angola
		Mozambique
		Congo, Dem. Rep.

The availability of data across different data types is shown in Figure 7-1 (indebtedness is excluded). The figure shows that the most missing data are for budgetary issues, followed by the balance of payments.

The fewest data are available for Tanzania, Zambia, Malawi, Angola, Mozambique, and the Democratic Republic of Congo. Data classes for which data are least available are budgetary issues, the balance of payments, and level of indebtedness.

Figure 7-1. Data Availability by Data Type



SADC INVOLVEMENT IN IMF DATA PROGRAMS

The Statistics Department of the IMF has been working closely with SADC countries under its data standards initiatives. This work has included supporting SADC countries' participation in the IMF's GDDS. Participants in the GDDS prepare metadata that describe current statistical systems and the plans for improvement that the authorities intend to undertake to upgrade national statistical systems to meet GDDS recommendations. Metadata cover dissemination practices at the agency level,

especially with respect to data integrity and access. Most SADC countries are involved with the GDDS program, but only 3 of 14 have published metadata. Table 7-7 summarizes SADC countries' involvement in the IMF GDDS program. That involvement will provide greater clarity about data quality.

Table 7-7. SADC Countries' Involvement in the IMF GDDS program

Registered for the GDDS; Metadata Published	Registered for the GDDS; Metadata Being Published	Registering for the GDDS Program	No Record of Registration for GDDS
Mauritius	Botswana	Angola	Seychelles
Tanzania	Lesotho	Mozambique	
South Africa	Malawi	Congo, Dem. Rep.	
	Namibia		
	Swaziland		
	Zimbabwe		
	Zambia		

SOURCE: IMF Statistics Department

SOME ADDITIONAL DATA

Table 7-8. Number of Observations for Each Country Where Observations Are Missing

Country	CPI (1995 = 100)	Inflation, GDP Deflator (annual %)
Angola	11	15
Congo, Dem. Rep.	22	23
Lesotho	23	25
Malawi	21	25
Namibia	20	20
Tanzania	25	12
Zambia	13	25
Zimbabwe	24	25

Table 7-9. Number of Years for Which Data Are Available for Countries Without Complete Data Sets

Country	Current Account Balance (% of GDP)	External Balance on Goods and Services (Constant LCU)	Net Income from Abroad (Constant LCU)
Angola	16	16	16
Botswana	24	19	25
Congo, Dem. Rep.	23	23	23
Lesotho	25	25	25
Malawi	24	25	25
Namibia	10	21	21
Seychelles	25	16	25
Tanzania	13	11	13
Zambia	14	25	25
Zimbabwe	18	25	25

The table shows that all countries have data for more than 10 years.

8. Design of Convergence Monitoring Process and Surveillance Procedures

The draft memorandum of understanding endorsed by the SADC ministers of Finance on July 31, 2001, envisaged a regional convergence program driven by a "dynamic, sustainable and credible regional economic unit." In this chapter, we propose a design for this unit, the Mutual Stability Mechanism (MSM). Recommendations are based on the ministerial communiqué endorsing the draft MOU, international experience, lessons from economic theory, and local conditions. Many recommendations build on deliberations at a workshop on convergence held in July 2001 in Johannesburg.

MUTUAL STABILITY MECHANISMS

An MSM is a regional and multilateral arrangement dealing with monetary and fiscal policy. It is based on an agreement among states to achieve certain macroeconomic stability targets. The agreement creates a transnational body that monitors and evaluates the performance of member states. Participating countries may be rewarded or penalized for their performance. Although a recent phenomenon, MSMs have proven critical in macroeconomic management, especially in Europe.

Other International Economic Institutions and MSMs

International lending bodies, transnational central banks such as the European Central Bank (ECB), and multilateral think tanks all bear some relation to MSMs (see Table 8-1). International lending bodies provide funds to governments and other borrowers. When lending is made at a concessionary rate, it is in part a grant. The lending may be for development, as from the World Bank and the regional development banks, or for support during a balance-of-payments crisis such as the International Monetary Fund provides. In contrast, MSMs do not lend to member states, nor do they provide the tools for managing an economic crisis. If an MSM functions well, it does reduce the probability of such a crisis occurring.

Transnational central banks manage currencies that are used by more than one nation. Although the European Central Bank (ECB) is the most prominent of these, the Eastern Caribbean Central Bank (ECCB) is the central bank for seven island nations in the Caribbean. Two transnational central banks service the CFA franc zone: the Central Bank of West African States (known as BCEAO), and the central bank for the Central African Monetary Union (known as BEAC).

Table 8-1. International Economic Institutions

Name	Headquarters	Description
European Central Bank (ECB)	Frankfurt, Germany	Manages the euro, regulates financial markets, and provides advice to European Union governments
European Monetary Institute (EMI)	Frankfurt, Germany	Laid the groundwork for the ECB, providing policy advice to member states, and became the ECB when the single currency was established in Europe
Eastern Caribbean Central Bank (ECCB)	St. Kitts and Nevis	Is the central bank to seven East Caribbean states
Central Bank of West African States (BCEAO)	Dakar, Senegal	Is the Central Bank to the Franc Zone in West Africa
International Monetary Fund (IMF)	Washington D.C., USA	Is an international lender of last resort
International Bank for Reconstruction and Development (World Bank)	Washington D.C., USA	Provides lending to assist in the elimination of poverty
Organisation for Economic Co-operation and Development (OECD)	Paris, France	Provides policy advice to its 30 member states around the world

SOURCE: Websites of the organizations discussed

MSMs do not issue or manage currencies, determine money supply, or set interest rates. They may help prepare for a currency union and may therefore be a precursor to a transnational central bank. For example the ECB's precursor, the European Monetary Institute, was an MSM. An MSM also may be a complementary mechanism to a transnational central bank in a currency union. In Europe, an MSM called the Stability Pact ensures that national fiscal deficits converge at stable levels.

Certain multilateral economic organizations have evolved into think tanks on important issues. Some of the best regarded—such as the OECD and the Bank for International Settlements (BIS)—have branched out into managing multilateral policymaking, treaty-making, or regulatory processes. The Basle Committee's work on bank regulation, performed under the aegis of the BIS, is an example. But MSMs are not merely multilateral think tanks. They play a pivotal institutional role in assessing and monitoring national macroeconomic policies and performance. And they change the incentives faced by members when making policy decisions.

International economic institutions sometimes combine the functions of two or more of these categories. The combination of focused monitoring, regional make-up, and incentive-changing sets MSMs apart.

European MSMs

Europe offers two important examples of MSMs: The European Monetary Institute (EMI), which between 1994 and 1998 managed preparations for monetary union; and the Stability Pact of the European Union, which aims to maintain fiscal prudence in Europe.

The Maastricht Treaty established the EMI to manage preparations for the European Monetary Union. Before it was superseded by the European Central Bank in 1998, the EMI was the prototypical MSM. It

- Strengthened coordination between national central banks;
- Monitored the monetary policy of member countries and the functioning of the European Exchange Rate Mechanism (the system of fixed exchange rates that preceded monetary union);
- Assessed whether member countries met the requirements for joining the European Monetary Union; and
- Provided advice to member countries.

In strengthening coordination for a single currency, the EMI met with central bank governors to evaluate countries' monetary stance and policy plans for the future year; prepared the technical infrastructure for a trans-European system of payment and settlement; consulted with central banks on issues affecting the stability of financial institutions and markets; and developed a framework for conducting foreign exchange operations as well as holding and managing the official foreign exchange reserves of the participating member states.

SADC can learn much from the experience of the EMI. A very important factor in the success of pre-euro stabilization in Europe was an imminent and attractive currency union with low German-style interest rates. The SADC MSM will not have that incentive to offer, at least not in the early years. It therefore will have to rely on other levers.

In the Maastricht Treaty, EU countries committed themselves to "promot[ing] … the convergence of economic performance, and [achieving] economic … cohesion and solidarity among Member states." Whereas monetary convergence was achieved primarily through the EMI and the ECB, the convergence of fiscal policy is managed through the Stability Pact. The pact commits EU members to prudent and converging fiscal policies and stipulates penalties for noncompliance. EU member states commit to the following fiscal rules:

- Fiscal deficits should not exceed 3 percent in the short term.
- In the medium term, member states should maintain sustainable fiscal positions.
- The ratio of government debt to GDP should not exceed 60 percent.

According to Article 122 (2) of the Treaty[36], the European Commission and the ECB, at least once every two years or at the request of a member state, provide a report on the progress made by the member state with a view to the fulfillment of its obligations regarding the achievement of

[36] References to the Treaty refer to the Treaty establishing the European Community (as amended by the Treaty of Amsterdam).

economic and monetary union ("convergence report"). This report takes into account all relevant factors, including whether the budget deficit exceeds government investment expenditure and the medium-term economic and budgetary position of the member state. The commission also may prepare a report if, notwithstanding the state's fulfillment of requirements, it is of the opinion that there is a risk of an excessive deficit in a member state. The Economic and Financial Committee formulates an opinion on the report of the commission

Finally, in accordance with Article 104 (6), the EU Council, on the basis of a recommendation from the commission, having considered the observations of the member state, and acting by qualified majority after an overall assessment, decides whether an excessive deficit exists in a member state. If the council decides that a state has an excessive deficit, it advises the state on how to reduce it. This advice is confidential. If the member state fails to put this advice into practice within the time specified, the council can implement penalties.

It will be interesting to see how successful the pact will be—the euro has been launched and member states are safely inside the monetary union, from which they cannot be removed easily. The penalty mechanisms are being tested only now. No European country has been fined yet, and some doubt that the penalties will work.

Two problems have arisen: countries manipulate budget statistics, and EU member states are shifting goalposts. Portugal has been accused by the statistical watchdog of the European Commission of under-representing its deficit by 50 percent. Italy has been accused of inappropriately using revenues from a securitization to reduce its reported deficit. Furthermore, EU member states committed themselves to achieving budgetary balance by 2002 but shifted the deadline to 2004. Now some EU members have attempted to shift the date to 2007. The threat of penalties may have created pressure to lower criteria or manipulate figures rather than decrease deficits.

The number of MSMs is limited; it is important to learn as much as possible from the European experience while remaining mindful of salient differences between SADC and Europe.

MSMs AND CREDIBILTY

In this context, credibility means that private agents—foreign and domestic investors and trade unions—have confidence that a government will follow sound policies over time, even in the face of pressure to deviate from these policies. A government may face crises that raise the cost of abiding by policies and feel pressure to resort to short-term measures of higher spending or money creation that will ease officials' re-election or placate political allies but undermine the country's commitment to a stable economy. Furthermore, when a government has announced firm policies, and investors and other economic participants have acted on them, the government might be tempted to reverse the policies.

When a government undertakes to keep inflation low, private agents often find it prudent not to believe in the government's incentives. Then announced reforms are not credible, and a gap develops between plans and the credibility of these plans. This will be referred to as the credibility gap.

A credibility gap raises the cost of sound policies. For example, when private agents disbelieve a government's inflation objectives, it will act on the basis of higher inflation, thus forcing the government to contract the economy to achieve the lower price increases. Conversely, a government with credibility could achieve low inflation without having to precipitate a recession.

A credibility gap reduces the benefits of sound policies. Higher employment rates and incomes ultimately require long-term investment in productive capacity. Good policies today will not lead to investment today if investors doubt that the good policies will continue. But if good policies are credible, investors will respond emphatically. A manifestation of a lack of confidence is when investors do not rally around good policy news because of a credibility gap.

Building credibility is costly. It is particularly costly for a country with a history of volatility because the process of building credibility may require years of confounding market expectations—hence the need for an institution that reduces the cost of establishing credibility. A well-functioning MSM is an international body that reduces the cost of establishing credibility.

External and Internal Institutions That Confer Credibility

Because of the need to establish credibility at the lowest cost to society, a number of credibility-conferring institutions have come to the fore. Some of these provide credibility as a byproduct of sound public management—well-functioning fiscal management and revenue services are examples. Other institutions, such as independent central banks, are designed specifically to confer credibility on policy processes. Conditional lending by the IMF and the World Bank is also, among other things, an attempt to confer credibility on borrowing governments, although it is not clear that it has succeeded.

Credibility-conferring institutions are often complementary; see the MSMs and the domestic institutions listed below.

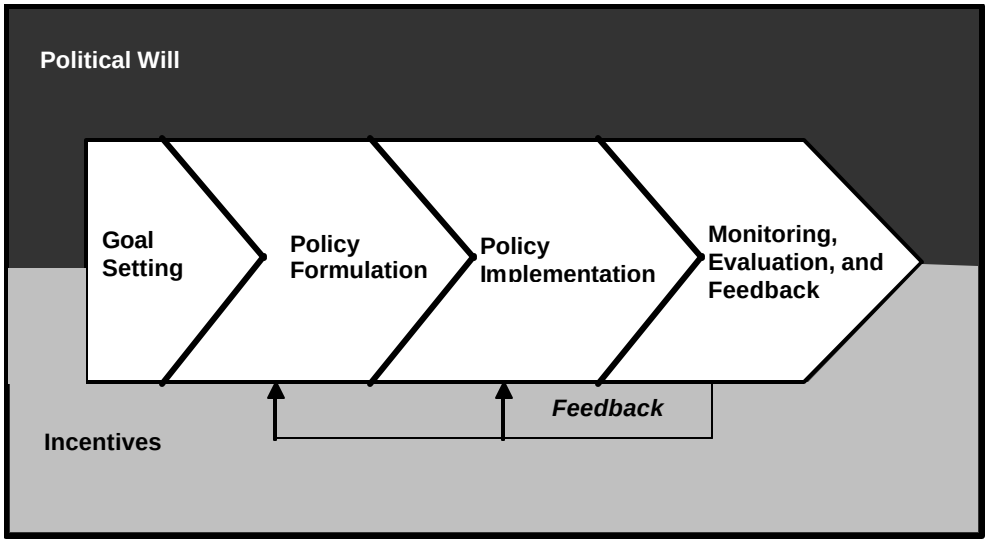
Domestic institutions	*International and regional institutions*
Independent central bank	Conditional lending by multilaterals
Sound fiscal management capacity	MSM
Effective internal revenue service	Currency union (may be with accompanying MSM)

In other cases they are alternatives. For example, an MSM is a local, regional alternative to conditional lending. Both types of institutions seek better policies and credibility, but with MSMs the states themselves choose policy objectives and means of implementation, and the support for the policy objectives comes from the region, not a geographically distant center. This does not imply that an MSM regime will or can be less rigorous than a conditional lending regime. But the regime is internally, not externally, imposed.

Policy Credibility Path

Figure 8-1 shows the factors determining policy credibility in a national economy. The figure emphasizes that how policy is made and implemented influences credibility. In Southern Africa, avoidable mistakes in the policy process often have contributed to policy uncertainty and lack of credibility. The SADC MSM should focus on strengthening key national policy processes, among other things.

Figure 8-1. Policy Credibility Path



Goal setting refers to the form and content of the goal such as a deficit or inflation target, or a set of targets. A goal that is superfluous, internally inconsistent, or plainly not achievable corrodes the credibility of that policy choice and of government announcements generally. An MSM can ensure that goals are internally consistent, consistent with other undertakings of the country, achievable, well-specified, and move towards stability with sufficient speed.

Policy formulation refers to the detailed policy plan specifying the policy levers that will be used to achieve the goal, for example, the spending cuts and revenue projections intended to deliver a desired net deficit position. If the plan is flawed, the goal will not be achieved. Policy formulation is a national function. A suitably structured MSM can provide advice on policy development to members and assist in building capacity in the key macroeconomic policymaking skills.

Policy implementation problems, borne of insufficient capacity and poor incentives in the public sector, dog all SADC member states to some extent. Successful policy implementation is linked closely to the availability of capacity and the design of institutions. A suitably structured MSM can provide assistance in both areas.

Monitoring, evaluation, and feedback range from early warning systems to assessments of efficacy and feedback to the political goal-setting process. These core functions of an MSM also serve to strengthen parallel processes at the national level.

In SADC, enormous gains can be made from improving these capacities and processes. If the SADC MSM focused only on penalties and rewards, the consequences would be dire for states that could not comply because they lacked the necessary policy processes and institutions.

Besides the quality of the process, two further aspects are critical to policy credibility: political will and incentives for adhering to policy. Political will is a key ingredient in ensuring consistent and credible policy. A successful MSM has the effect of changing the vocabulary of the public discourse on economic policy. This may indirectly assist in the strengthening in national polities of political will with respect to these issues.

Although in the long term macroeconomic stability is clearly advantageous for a country, in the short term, political and sometimes economic temptations may encourage destabilization. The European MSMs changed the incentives for adhering to policy objectives. Incentives can be penalties, such as fines for not meeting targets, or rewards, such as access to grant funding or membership in a currency union, for meeting them.

The success of the European Stability Pact in the run-up to the launch of the euro was no doubt in large part due to the strong desire of countries to join the monetary union. Countries that had to make large adjustments, such as Italy, perceived correctly that joining offered them important advantages in terms of sharply lower interest rates, deeper own-currency capital markets, and deeper integration into a larger economic unit.[37] Likewise, the desire of West African governments to remain in the CFA franc arrangement provides a powerful incentive. Yet once countries are in the super-currency zone and are difficult to remove, the incentive to adhere to targets may diminish: Witness last year's discussions in Europe about the Stability Pact.

Until a common currency becomes a near-term prospect in Southern Africa, the SADC MSM will have to function without the benefit of a euro-style super-currency payoff. The body will have to make the most of other incentives for improving policy outcomes.

Enhancing Credibility from the Inside

The policy credibility path makes clear that MSMs can improve the credibility of government policy through means other than changes in incentives. By building institutional capacity and providing impartial advice, an MSM can contribute to the credibility of national governments. This approach may be powerful because

- Governments take ownership and responsibility for the outcomes of policies that they have created or chosen;
- Analysis leads to greater certainty about policy costs and rewards;
- An increase in institutional capacity leads to the ability to implement the policy more successfully;
- More knowledge about the policy leads to a more informed debate within government and the political arena;
- Policy that is made with the full awareness of the alternatives is less likely to be changed and more likely to be implemented effectively; and
- The more support a policy has and the stronger the institutions behind it the more credible it becomes.

MSM Must Remain Credible

The MSM cannot confer credibility to participating countries if it is not credible itself. In subsequent sections, the institutional imperatives for maximizing the SADC MSM's credibility are set out. In

[37] Countries that were expected to enter the currency union experienced a dramatic fall in the interest rates they had to pay on their debt. In the 15 months starting January 1996, the interest rate spreads between German and Italian 10-year government bonds fell from 5 percent to 2 percent.

this section we deal with two issues: the problems that occur if the MSM's incentive-changing devices are themselves not credible, and the role of an anchor state.

The credibility of penalties. An MSM may wish to use penalties, fines for example, to change the incentives of members. For this to work, a supra-national authority that can enforce the penalties (such as the European Union) must be in place. Penalties and the process of levying penalties also must be credible—in other words, it must be likely that a transgressor will be fined and have to pay the fine. And the threat of penalties must not lead to "hollow" compliance, where countries comply with the letter of the target but not in substance.

The history of penalties in this context is not promising. Conditional lending by multilateral organizations proved the difficulty of enforcing penalties—withholding further loans—during crises or in politically sensitive situations. Furthermore, externally imposed conditions led to hollow compliance, where the policy sought was achieved only superficially or only during the term of the loan.

We already have discussed problems with penalties in the European Stability Pact. In that case, decisions to fine transgressing countries must be validated by the European Council. The European Council takes its decision by a qualified majority, which means that a group of large countries can effectively exercise a veto. At this point, three large European countries—Germany, France, and Italy—are in imminent violation of the requirement that budgets be balanced in the near future. A fourth country, Portugal, has already violated the standing limit of budget deficits to 3 percent. As discussed previously, Italy and Portugal also have been found to have understated their 2001 budget deficits by as much as a third.

These events in Europe are sobering. Some of the countries involved are discussing possible relaxations to the balanced-budget rule. For Portugal, for which fines of up to 0.5 percent of GDP are possible, a long and possibly inconclusive process will now commence. (It is noteworthy that the hardest sanction for Portugal may be the withholding of $6 billion of development funds, "cohesion funding," in EU parlance. This type of carrot is not available in SADC).

A sanction that requires a regional grouping to place a heavy fine or other penalty on a peer at a time of economic stress is not credible, in SADC or elsewhere.

The role of an anchor state. In most MSMs resulting in monetary union a major state anchors the union. In the West African Monetary Union the anchor state is France. In the run-up to European Monetary Union the anchor state was Germany. In both these cases the anchor state made sure that there were high requirements for entry into the union and that these requirements were maintained. In Europe, Germany was pivotal in ensuring a deficit target was introduced as a requirement for entry into the single currency. Germany's commitment to these targets was a significant reason that countries believed that if they failed to meet the requirements they would be excluded from the euro-zone. In the West African Monetary Union, France ensures that rules are kept and that countries do not contribute to monetary instability.

In both these cases the anchor state probably had the least to gain from the union. Germany already had one of the most stable currencies in the world. Only a small proportion of the French economy is affected by economic conditions in the countries in the two CFA franc zones. Only a small proportion of France's imports, exports, and foreign direct investment are with the African states concerned.

What this implies is that an anchor state that has little to lose from the failure of the union can credibly threaten to leave the union if the policies it wants are not adopted and implemented. The other states implement the anchor state's wishes because its presence is seen as critical to the success of the union.

Implications for the SADC MSM

Credibility is the core issue for an MSM. Our discussion of credibility has the following implications for the SADC MSM:

- The mission-critical challenge for an MSM is to achieve credibility at two levels:
  - The institutions of the MSM must themselves be credible.
  - The MSM must be able to significantly enhance policy credibility at a national level.
- For the SADC MSM to have internal credibility, it must have
  - Technical expertise and sufficient resources
  - Autonomy and transparency
  - Clear functions
  - Well-designed processes
  - Clearly defined interaction with member governments and the Committee of Ministers

  (These requirements are fleshed out in the section on institutional design.)
- For the SADC MSM to enhance the credibility of member economies to the greatest extent, it must assist members in the various stages of the policy credibility path:
  - Goal setting
  - Policy formulation
  - Policy implementation
  - Monitoring, evaluation, and feed-back
  - Incentives.

  Although we believe that the MSM will lead indirectly to a strengthening of political will with respect to macroeconomic policies (the sixth element of policy credibility), it obviously should not be a functional area for the MSM.
- Unlike the European and West African MSMs, the SADC MSM will not have a super-currency to offer as an incentive for achieving targets. This may change, but not for the next few years.
- The SADC MSM also will not be in a position to set credible penalties such as fines as an incentive to achieve targets. We therefore recommend that this kind of penalty not be considered.
- The SADC MSM also probably will not be in a position to use access to large development funds as a carrot for achieving targets.
- The SADC MSM will rely on the policy support and advice it can provide members to instill credibility.
- The SADC MSM also will rely on its ability to assess and signal progress and problems to instill credibility. In this context, the notion of a formal convergence club is important.

SADC CONTEXT

In this section we discuss the institutional context of SADC as background for locating the MSM in the broader context of SADC decision-making and governance. We therefore deal only with structures relevant to the MSM and its activities.

The precursor to SADC, the Southern African Development Coordination Conference (SADCC) was formed in 1980 to promote cooperation between the states of Southern Africa. It was superseded by SADC in August 1992 when the Declaration and Treaty of SADC was agreed to in Windhoek. The SADC Treaty was amended March 9, 2001 to provide for substantial changes to the institutional makeup of the community. These changes are to be phased in over a two-year period from the date of the agreement.

The 2001 amendments affect both the governing and executive structures of SADC. The current situation is therefore one of ongoing change as well as uncertainty about exactly how some of the new structures will function. The description of SADC in this document is based on the SADC Treaty and relevant protocols as they stand (after amendments). Where new structures are not operational or only partly operational, we indicate the position as of August 2002.

The supreme policymaking and decision-making body of SADC is the Summit, consisting of the heads of state or government of all the member states.[38] The Summit adopts legal instruments for the implementation of the treaty but may also delegate this authority to the Council. The Summit is also responsible for the "creation of committees, other institutions and organs as necessary." Decision-making is by consensus.

The political oversight function in SADC is the responsibility of the Council, consisting of one minister from each member state, preferably the minister responsible for foreign or external affairs.[39] The Council must oversee the functioning and development of SADC as well as the implementation of the policies of SADC, advise the Summit on policy and functioning, and recommend for approval to the Summit the establishment of institutions and organs of SADC. The council receives technical advice from the Standing Committee of Officials.[40]

The political work horse of SADC is the newly created Integrated Committee of Ministers, which had not yet been established at the time of writing of this report (August 2002). It was created by the amending agreement of 2001[41] and is intended to replace the current Sectoral Committees of Ministers (see below). The Integrated Committee will consist of at least two ministers from each member state. They will have the responsibility of overseeing the activities of the core areas of integration in the Community, which include:

- Trade, industry, finance and investment;
- Infrastructure and services;
- Food, agriculture, and natural resources; and
- Social and human development and special programs.

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[38] Article 10 of the SADC Treaty.

[39] Article 11 of the SADC Treaty.

[40] Article 13 of the SADC Treaty.

[41] Article 12 of the SADC Treaty.

The Integrated Committee will have decision-making powers to ensure the rapid implementation of programs that would otherwise wait for a formal meeting of the Council. They will take decisions by consensus.

The Secretariat is the principal executive institution of SADC.[42] As such it is responsible for the implementation of decisions of the Summit and other political organs of the Community, financial and general administration, coordination and harmonization of the policies and strategies of member states, dissemination of information on the community and the maintenance of a database, and the management of special programs and projects. The structures of the Secretariat, as well as its personnel policies are determined by the Council.

The Secretariat is headed by the executive secretary[43] who is appointed by the Summit on the recommendation of the Council. The executive secretary must consult and coordinate with the governments and other institutions of the member states. He or she is also responsible for the preparation of the budget and audited accounts of SADC for submission to the Council.

The proposed new structure of the centralized secretariat is set out in Figure 8-2. The current executive structures of SADC are more dispersed.[44] The decentralized structure originated with the SADCC. Each member state was allocated the responsibility for coordinating one or more sectors—areas of intended cooperation within the community such as energy, industry and trade, and finance and investment. There are now 21 of these sector coordinating units in 12 of the 14 SADC countries. The sector coordinating units are national institutions established in the appropriate line ministry by the member country responsible for coordinating that sector and staffed by civil servants from that country.

South Africa is the sector coordinator for finance and investment. Each coordinating unit is mirrored by a commission, which is a Community institution, assisted by a secretariat supported by all member states. These institutions (sector coordinating units and commissions) get their political guidance from sectoral committees of ministers. The committee of ministers relevant to this report is the SADC Committee of Ministers of Finance and Investment. The Finance and Investment Sector coordinating unit is divided into two committees—the Committee of Treasury Officials and the Committee of Central Bank Governors. These two committees work independently from each other but with complementary activities, concentrating on fiscal and monetary policy issues respectively.

The Committee of Central Bank Governors was established to promote closer cooperation among central banks within SADC in the areas of monetary policy and monetary policy instruments, bank supervision, money and capital markets, international financial relations, payment, clearing and settlement systems, training, and money laundering. Initially most of the projects of the committee focused on information gathering. The projects have since progressed to focusing on regional integration.

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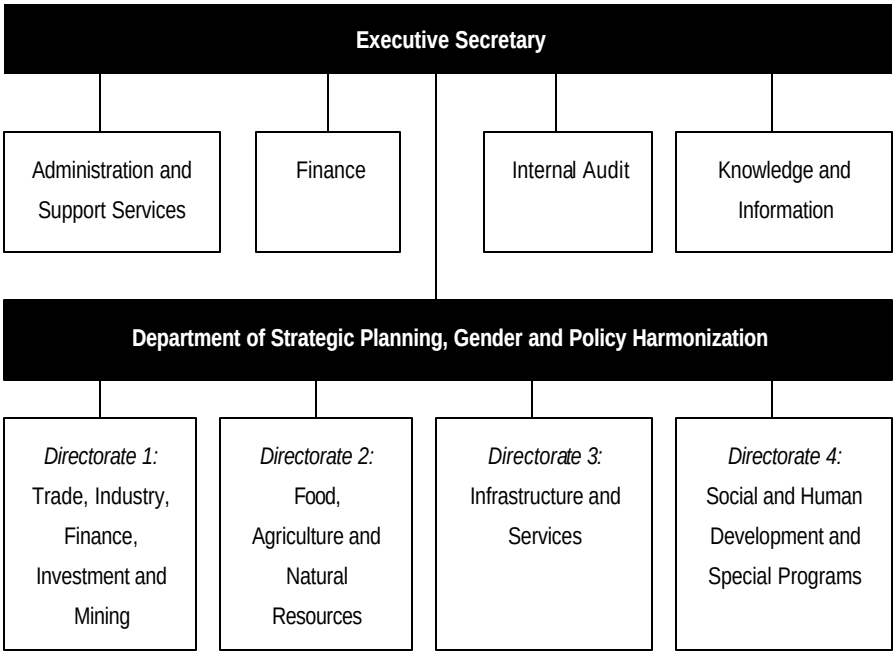
[42] Article 14 of the SADC Treaty.

[43] Article 15 of the SADC Treaty.

[44] This exposition owes much to the report by Isaksen and Tjønneland, 2001.

Figure 8-2. Structure of the SADC Secretariat



Source: (Isaksen et al, 2001)

In 2001 SADC decided to abolish the 21 sector coordinating units and commissions located in 12 of the member countries in favor of bringing the units together in four clusters or directorates in a strengthened Secretariat in Gabarone. To bolster the capacity of the Secretariat, it was also decided to create a Department of Strategic Planning, Gender and Policy Harmonization. The areas of responsibility of the four directorates will correspond with the focus areas for integration and will fall under the Department of Strategic Planning, Gender and Policy Harmonization. Each will be headed by a director.

The only directorate that has not been established is the Directorate for Trade, Industry, Finance, Investment, and Mining. This directorate will replace the Finance and Investment Coordination Unit (FISCU) previously based at the National Treasury in South Africa. As of now the members of the directorate continue to work in South Africa but the National Treasury has prepared for a project management team to run with the FISCU tasks until the directorate is fully resourced.

SADC, like most other international organizations of this type, develops common approaches and policies through protocols. In the past, these protocols were developed by the sectoral actors in collaboration with the relevant SADC agencies. This still holds true until the newly created institutions are fully functional. The protocols are then submitted to the Council for approval. Thereafter they must be signed by the Summit of Heads of State or Government. The final stage before coming into force is ratification by the member states. Twenty protocols have been signed to date and eight have been ratified and have entered into force.[45] These 20 do not include a protocol in the finance and investment sector. However, the trade protocol is relevant to this report.

[45] Isaksen and Tjønneland, p.3.

In 1996 the SADC Summit signed a trade protocol that aims to establish a SADC Free Trade Area within 8 years. Implementation of the trade protocol commenced only on September 1, 2000. The intention is that 85 percent of intra-SADC trade will be freed from tariffs by 2008. Eleven of the 14 SADC members have ratified the trade protocol.[46]

INSTITUTIONAL ARCHITECTURE OF THE SADC MSM

An MSM is by nature not a single institution, not a single body or decision-making organ with executive support, but a mechanism involving coordinated actions by a number of institutions acting in terms of a multilateral agreement (protocol) that has been ratified by the participating states.[47] The objective of the entire mechanism, its functions, the composition, roles, and powers of the respective institutions, and the relevant administrative organs must be spelled out in the protocol. The basic elements of the design of the proposed SADC MSM are restated at the end of the section.

Proposed SADC MSM Design Elements

The MSM has the following six building blocks:

- *Voluntarism.* Countries decide for themselves whether they want to participate and then are committed to subjecting themselves to the full rigors of the process.
- *National ownership of national programs.* Members themselves design the programs aimed at meeting targets. But, as part of the credibility mechanism, these programs have to be proven consistent in terms of other commitments made by the country and in the context of that country's economy. A program that, upon review, is found to be inconsistent is referred back to the member for adjustment.
- *Public commitment.* With consistent programs in hand, members commit publicly to meeting precise numerical targets within specified time frames.
- *Independence*. The technical elements of the MSM, particularly the SSU, must remain resolutely autonomous and nonpolitical, rendering analysis and recommendations on the basis only of objective technical grounds.
- *Mutual surveillance*. A politically independent SADC body is tasked to assess and review progress and report results to the Committee of Ministers of Finance and Investment. For the system to impart discipline, it is essential that targets, progress, and outcomes be published, and that the process be transparent.
- *Recognition of achievement.* Members that achieve long-term stability goals become members of a "convergence club." Globally acceptable stability targets define the convergence clubs, and membership in a club signals to the global community that the country has achieved a high measure of stability. Convergence club members that slip in

[46]Democratic Republic of Congo and the Seychelles have indicated that they will not ratify the protocol. Angola is considering ratification.

[47] The term "participating states" refers to states that ratify the MSM protocol.

performance publicly lose their position in the club. Members that have not yet achieved the long-term goals nonetheless receive public commendation for progress. In both cases public rebuke is an available disciplining mechanism.

- *Institution-building and policy development at national level supported.* A large part of the resources of the MSM is dedicated to ongoing interaction with member governments to build key institutions and policy processes at the national level.

MSM Objective

The objective of the MSM is to foster macroeconomic stability in the economies of the participating states. To meet this objective it must oversee a process of macroeconomic convergence between the participating states.

MSM Functions

To achieve its objectives, the MSM must perform a number of critical functions.

Establish convergence indicators and targets

The MSM must set the macroeconomic stability indicators and their targets in the participating states. The following indicators have been provisionally agreed to:

- Inflation
- Budget deficit
- Public sector debt
- External balances.

Monitor economic policies and performance

The MSM will monitor the economic policies and performance of the participating states in line with the objective of achieving macroeconomic convergence and stability. They will do this based on information and data supplied by the participating states as well as on information independently gathered.

Assess actual convergence or divergence

On the basis of the information gathered, the MSM must assess the progress of individual states towards the achievement of the targets and report on its findings.

Provide advice

The MSM, on the basis of its monitoring and assessment of the economic policy and performance of participating states, must advise those states on policy and other steps that can be taken to facilitate the progress of the economy concerned towards the convergence targets.

Support institutional development and capacity building in the participating states

The MSM, upon request by a participating state, must assist the appropriate organs of state in that country by supporting the development and improvement of economic institutions and processes critical to the achievement of macroeconomic stability in the country requesting assistance.

Recommend incentives and penalties

Based on its assessment of the performance of participating states, the MSM must recommend appropriate incentives and penalties, being those provided for in the protocol, to be extended to or imposed on a particular state.

MSM Proposed Institutional Architecture

The proposed institutions comprising the MSM and their respective roles are set out below. The proposal is motivated by the draft Memorandum of Understanding, the existing structures and agreements governing the functioning of SADC, the implicit requirements for a mechanism of this kind, and international experience. It is envisaged that the primary roles in the MSM will be played by two institutions: the existing Committee of Ministers of Finance and Investment, and a to-be-created Stability Surveillance Unit (SSU).

Committee of Ministers of Finance and Investment

The current Committee of Ministers of Finance and Investment (referred to as the Committee of Ministers), or any future successor, for example the Integrated Committee of Ministers when it is established, will be the political decision-making institution of the mechanism. For the purposes of the MSM Protocol, only states that have ratified the protocol will have decision-making powers.[48] It is anticipated that key decisions may be referred to the Council or Summit of SADC.

The Committee of Ministers, in performing its functions, will be assisted and advised by the Committee of Treasury Officials and the Committee of Central Bank Governors. The roles and functions of these two committees are not spelled out separately but are subsumed in the powers and functions of the Committee of Ministers.

Powers and Functions

The suggested powers and functions of the Committee of Ministers in relation to the MSM are as follows:

- Establish the macroeconomic indicators that are to be used. This should be included in the MSM protocol.
- Set the convergence targets and convergence clubs (as described below) for the MSM process and adjust these targets if circumstances dictate. This may or may not be included in the MSM protocol depending on the level of flexibility in the targets agreed to. They also set

[48] See the new clause 22 (10) of the SADC Treaty as amended in March 2001.

the intermediate targets for participating states, as captured in the convergence programs submitted by the individual participating states.

- Assess the annual convergence programs submitted by the participating states.
- Advise the participating states on recommended adjustments to their proposed convergence programs.
- Decide whether participating states adhere to the common guidelines and whether they comply with the convergence programs agreed to.
- Recommend incentives and penalties to the Council of SADC, which in turn will make recommendations to the Summit. This includes endorsement of the SSU's categorization of country positions and extent of progress.
- They appoint the Board and the executive members of the SSU.

In the performance of its powers and functions the Committee of Ministers will base its decisions on the reports, opinions, and recommendations of the SSU. If the Committee of Ministers deviates from recommendations made by the SSU, it will give clear reasons for the deviations and these may be required to be made public.

Decision-making Rules

The decision-making procedures to be used by the Committee of Ministers when seized with decisions relating to the MSM need some consideration. As mentioned, only states that ratify the MSM protocol will be able to participate in these decisions. The use of the normal SADC rule of consensus decision-making, however, may risk undermining the purpose of the MSM. If consensus is the rule, the participation of any state in a decision that involves the potential imposition of any type of sanction or penalty on that state will virtually ensure that a negative sanction is not imposed. Secondly, and more subtly, a majority of participating states that find the disciplines of convergence either too rigorous or too public may be tempted to use their majority position in the governing institutions to retard the convergence process in any number of ways.

The decision-making procedures eventually adopted in the Protocol therefore should be designed carefully. The qualified voting system used in the European Union should be considered.[49] The qualified voting system allocates different weights to the votes of member states. These weights are carefully calibrated, taking into account the size of the country and its population. Decisions can then be characterized according to the number of votes required for a decision, as well as the minimum number of states that must vote in favor of the decision.

Convergence Clubs

The MSM should classify countries by the extent to which they have achieved convergence. An intuitive way to do this is to simply define convergence clubs based on the number of convergence

[49] See section 205 of the Treaty establishing the European Community.

targets, as defined by the Committee of Ministers, that a country meets. The convergence clubs would be:

- Club 4—Countries that meet all four targets
- Club 3—Countries that meet three of four targets
- Club 2—Countries that meet two of four targets
- Club 1—Countries that meet one of four targets
- Club 0—Countries that have achieved none of the targets

Table 8-2 summarizes the positions of the SADC countries.

Table 8-2. Macroeconomic Performance of SADC Countries Relative to Targets

Meets 3 targets	Meets 2 targets	Meets 1 target	Meets zero targets
Mauritius	South Africa	Tanzania	Zambia
(fails debt target)	(fails inflation and budget	(meets budget deficit)	Malawi
Swaziland	deficit)	Seychelles	Lesotho
(fails inflation)		(meets debt target)	Democratic Republic of
Namibia		Mozambique	Congo
(fails inflation)		(meets debt target)	Angola
Botswana		Zimbabwe	
(fails inflation)		(meets current account)	

None of the SADC countries makes it into Club 4. Mauritius, Swaziland, Namibia, and Botswana are in Club 3. South Africa is in Club 2. Tanzania, Seychelles, Mozambique and Zimbabwe meet only one target and are in Club 1. Zambia, Malawi, Lesotho, Democratic Republic of Congo and Angola are in Club 0—they have achieved none of the targets.

Finally, we want to define progress. Progress could be defined simply as the difference between the number of targets that are met at different points in time. Countries that progress could be given appropriate recognition.

Stability Surveillance Unit

We propose the establishment of a new unit called the Stability Surveillance Unit (SSU). Neither the SADC Treaty nor any of its protocols currently provides for such a body. Furthermore, neither the existing sector coordinating unit, nor the nascent centralized Secretariat has sufficient capacity to perform the tasks that will be the responsibility of this unit.

The SSU must have both the expertise and independence required to ensure that the MSM has backbone and credibility. The composition, powers, and technical skills base of the SSU are therefore critical for the success of the entire project.

The SSU essentially is a data-gathering and technical analysis unit consisting of independent technical experts. The technical experts' role will be to

- Gather and analyze macroeconomic data and information on the economies of the participating states, including data and information supplied by the states and information independently obtained.

- Perform a detailed analysis of the stability and convergence programs submitted by the participating states and provide the Committee of Ministers with reports and opinions on the accuracy, appropriateness, and achievability of the programs.
- Monitor the implementation by the participating states of their convergence programs and publish annual reports thereon, including the technical experts' proposed categorization of country positions into clubs and the extent of countries' progress. The publication of the reports must be independent of any external interference.
- Issue early warnings if the economic variables monitored by the SSU indicate that a participating state will not be able to meet its targets or honor its commitments. The purpose of an early warning is to give a state the earliest opportunity to take corrective actions.
- Advise, if requested to do so, the Committee of Ministers and any participating government on any matter relevant to the MSM.
- Assist participating states, upon request, with the formulation and implementation of economic policy and the development of economic institutions.

To ensure the independence of the SSU, we recommend that a Board be appointed to provide oversight and accountability. The Board should oversee the management of the SSU, its budget and personnel matters, but should not be able to interfere with the technical content of the reports compiled by the SSU. The Board should appoint the president and other executive members of the SSU according to criteria defined by the Committee of Ministers. The criteria should focus on technical competence, proven experience, and institutional independence.

It could contribute to the objective of the MSM, i.e. international credibility, if the appropriate international economic institutions, over and above the participating states, are approached to suggest nominees for appointment to the Board of the SSU. Nominees should also include internationally recognized macroeconomic experts not necessarily connected to an international economic institution.

Transitional Character

The MSM is transitional by nature. It is designed, through mutually agreed structures and procedures, to take a grouping of states from a state of macroeconomic instability and divergence to a state of macroeconomic stability and convergence. It is not a final destination, but a bridge. The ultimate destination is a form of monetary union and macroeconomic integration that will take shape as the convergence process progresses. Exhibit 1 is a checklist of functional requirements to be determined when creating an institution.

Exhibit 1. Checklist for Creating Institutions

When creating an institution, it is useful to keep basic functional requirements in mind. These requirements apply irrespective of the public or private nature of the institution or any other statutory rules.

- The purpose or object of the organization
- The functions that it will perform
- Issues of composition, governance and accountability
- Its powers and authority
- How decisions will be made
- The structuring of management and administration
- Financial issues, including funding, budgeting, auditing and financial reporting
- Conditions for eventual dissolution
- Issues of implementation, particularly when the institution supplants an existing institution.

SSU ACTIVITIES AND STRUCTURE

SSU Technical Areas

The ultimate objective of the SADC MSM is to improve policies and outcomes at a national level. The performance of the MSM's technical unit, known as the Stability Surveillance Unit (SSU), will be key to this. Table 8-3 sets out the national processes and institutions that will drive member compliance with each of the four targets identified by the Committee of Ministers. Because the SSU will need to be able to evaluate, plan, advice and assist with respect to the processes and institutions on the list, it is the starting point for defining its own technical capacity requirements.

The SSU will need to provide policy development and institution-building support in all or most of the areas listed. In addition, the SSU will need to monitor developments, assess plans, and provide feedback.

Table 8-3. National Processes and Institutions for Each Convergence Target (for Identifying Technical Capacity Requirements of the SSU)

	Key national processes		Key national institutions
	I Inflation target		
1	Definition and setting of inflation target	*1*	Functionally independent central bank
2	Setting of short-term monetary policy	*2*	Monetary policy committee
3	Transmission of monetary policy by central bank to economy	*3*	Central bank's role in money market and interest rate setting
4	Models for (i) predicting inflation and (ii) estimating the effects of monetary policy interventions on inflation	*4*	Technical capacity in central bank
5	Gathering of price data and inflation estimation	*5*	Agency measuring prices
6	Process for dealing with exemptions, if any	*6*	Institutional relations between monetary and fiscal authorities (and parliament)
7	Common monetary area processes	*7*	Common monetary arrangements in region (e.g. CMA)
	II Budget deficit target		
1	Medium-term expenditure framework	*1*	Budget office in Treasury
2	Short-term prediction model for expenditures and revenues	*2*	Budget office in Treasury
3	Finalization of annual budgets	*3*	Treasury and Parliament
4	Revenue collection	*4*	Revenue authority
5	Tracking of current expenditures and revenues. Risk factor tracking and early warning	*5*	Government accounting office; spending departments and entities; institutional relations between levels of government.
6	Public accounting and financial management	*6*	Public finance management legislation, government auditor & accounting officers
8	Management of large expenditure risks: SOE shortfalls and bank bail-outs	*7*	SOE oversight functions and banking regulator
	III Public sector debt target (additional to those mentioned under II)		
1	Debt management	*1*	Government debt management office
2	Management of debt risks	*2*	Public sector pension funds (if unfunded liabilities); inter-governmental fiscal relations; other debt accumulators
	IV External balances and other financial risks		
1	Relations with external lenders	*1*	Government debt management office; relations with multi-laterals and other official sources.
2	Monitoring of external private and public debt levels	*2*	International financial relations departments of treasury and central bank.
3	Monitoring of other financial imbalances and risks	*3*	Financial stability unit or, failing that, financial regulators
4	Early-warning system for build-up of risks	*4*	As under 3.

SSU Processes

Table 8-4 set out the key processes of the SSU. In the column on the right, the technical unit of the SSU responsible is noted. These units are identified in the next section. This addresses only the generation of technical output and not decisions ultimately taken by the Committee of Ministers.

Table 8-4. Processes of the Technical Unit of the MSM for Technical Outputs

	Process	Responsible unit
1	Recommendations on overall target-setting	Executive committee
2	Quality of member statistics reported to MSM Standard-setting and standardization Assessment of quality Assistance to members (processes and institution building)	Statistics and data division
3	National convergence plans Assistance with drawing up Assessment Post-assessment communication	The three appropriate functional divisions and economic-report unit, feeding into executive committee
4	Monitoring of member economies Execution of national convergence plan General monetary General fiscal and debt General external and financial	The three appropriate functional divisions
5	Validation of performance in terms of stability categories and national progress objectives	Executive committee, based on reports by divisions
6	Support for key national institutions, processes and policy development	The appropriate functional divisions, upon request by members
7	Early-warning system for deviation and risk in national economies	The three functional divisions, feeding into executive committee
8	Reporting to members, externally and to the Committee of Ministers	Executive committee, based on reports from functional divisions
9	Recommendations to Committee of Ministers.	Executive committee working from divisional reports.

Internal Organization

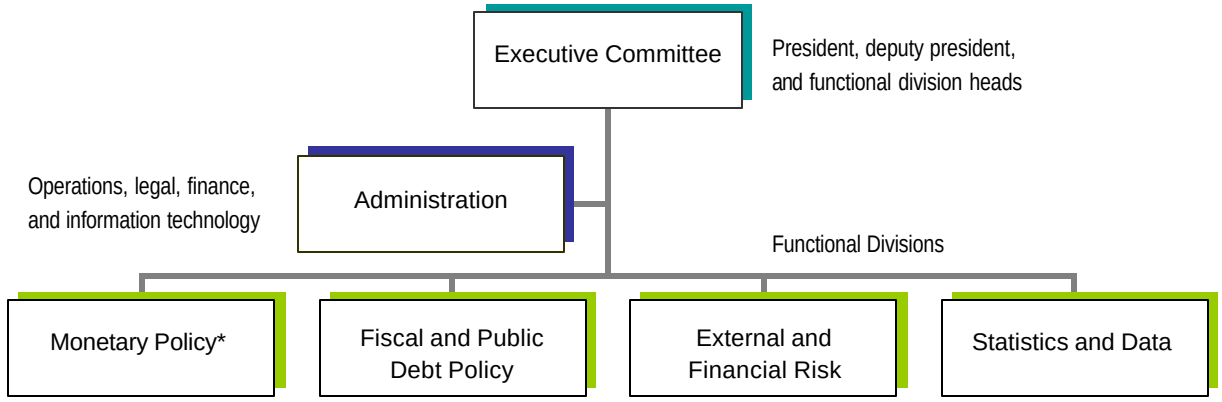
An important choice for the technical unit is whether to organize on a country (or country group) basis or per function / area of technical expertise. We have a strong preference for the latter option because organization along functional lines will

- Ensure that in each of the functional areas (monetary, fiscal and public debt, and so on) expert teams will form. Within these teams constant learning will take place, specialization deepen, and expertise accumulate.
- Ensure a common application of rules in each functional area across the region.

- Ensure that the best functional expertise is made available to all member states, rather than have them cluster around the larger states' work, as might occur in a country-based organizational structure.
- Enable best practice in a functional area to be made available rapidly to other countries in the region.
- Avoid attempts to intellectually hijack assessment of a particular country by the expedient of influencing the choice of head of a country division (in the functional approach there are no country heads).

The proposed internal organization of the technical unit is the following (see Figure 8-3).

Figure 8-3. Proposed Internal Organization of the Proposed SSU



*Also responsible for testing for consistency of overall plan and performance

First, four functional divisions consisting of teams of experts and led by a division head will monitor, assess, validate, and advise on institutions, processes, and policies. Each division will have specialist subunits and the capacity for advising national governments on institution-building and policy development. The four areas are

- Monetary policy
- Fiscal policy and public debt policy
- External and financial risk
- Statistics and data.

Second, the SSU will have a president and deputy president.

Third, an executive committee, will be the decision-making body of the technical unit and will consist of the president, deputy president, and the heads of the four functional divisions, and Fourth, an administrative unit will deal with staff, financial, legal, administrative, and information technology issues.

FINANCE AND BUDGET

This section deals only with the financing and budget procedures of the proposed SSU. The other institutions that will play a role in the MSM are already funded and their budgeting procedures are governed by either the SADC treaty or the statutory provisions of the relevant national jurisdictions.

The first principle of funding a surveillance unit of this type is that an inadequately funded unit is tantamount to no unit at all. In practically all national jurisdictions the easiest and most expedient way to pull the teeth of a watchdog is to squeeze its funding. Secondly, a contribution to the funding of the SSU by a participating state will be a sound indicator of the state's commitment to the process of macroeconomic convergence and stability. SADC has a checkered history when it comes to the timely payment of country contributions. In fact, the actual record is so dismal that the SADC Summit, where the Treaty was amended in 2001[50], thought fit to include specific and automatic sanctions for states whose contributions are in arrears.[51]

We proceed to deal with the SSU financial issues under the following headings:

- SADC financial procedures.
- Potential sources of funding for the SSU.
- The budget process.
- Financial reporting and auditing.

SADC Financial Procedures

SADC activities and projects are currently funded by contributions from the member states to the SADC Fund, multilateral or specific country donor aid, and funding from national budgets of specific staff that are seconded to work for SADC. Sectoral coordinating units are similarly funded from national budgets and are not reflected in the SADC budget.

The SADC budget is prepared by the Executive Secretary and approved by the Council. The Executive Secretary manages the finances and must cause annual financial statements to be prepared. The Council appoints external auditors to audit the financial statements. The audited statements are submitted to the Council for approval. This is however not the procedure followed for sector coordinating units. These units are funded by the states in which they are located and they follow the domestic budgeting processes.

Due to the overriding need for independence and credibility, neither of these models, without some modification, is likely to be appropriate for the SSU.

Potential Sources of Finance

We propose that the SSU be funded from one or more of the following sources:

- Contributions from the participating states. This can be either in the form of direct transfers, or by making facilities or staff available to the SSU.

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[50] See article 33 of the Treaty as amended.

[51] It may be worthwhile including sanctions of a similar type in the MSM protocol.

- Contributions from donor countries or international donor agencies.
- Secondments of staff from multilateral economic institutions with comparable skills and functions. In this instance the institutions concerned will continue to pay the salaries of the seconded professionals.
- Other sources, including loans or donations from the private sector.

Participating states need to make a significant contribution to the funding as a signal of commitment. Besides their annual contributions to finance the operational costs of the SSU, it is proposed that each participating state be required to place an initial non-refundable deposit with the SSU. The relative size of deposits should be based on the relative size of the economies of the participating states. These deposits should be invested and only accessed by the SSU if the participating state concerned falls in arrears with its annual contributions. The purpose for such a mechanism would be to insulate the SSU from short term financial shocks and to lessen the leverage of individual states over the SSU.

We do not suggest any likely order of magnitude for the SSU budget. Although a survey of comparable institutions may yield some tentative indications, the SADC circumstances and the particular tasks of the SSU are unique and comparisons would therefore be invidious. As the process of design of the SSU proceeds and further information comes to hand, the budget needs of the SSU will become clearer.

Budget Process

The key issue here is whether the SSU's budget should be processed as part of the general SADC budget, or whether it should follow a separate process. We propose a separate process, for three reasons. First, a separate and discrete process would emphasize and reinforce the independence of the SSU. Second, and related, if the SSU has to compete with other programs and projects of SADC, it would immediately become subject to the dynamics and trade-offs that invariably accompany the budget processes of public institutions. It leads to inevitable politicization. Third, the SADC organizational restructuring is likely to continue for some time. The budgeting process of organizations in flux is always fraught with difficulty and it would not be conducive to a well functioning SSU.

The proposed budget process for the SSU is the following:

- The Executive head of the SSU will be responsible for the preparation of a budget of estimated income and expenditure.
- The proposed budget must be approved by both the Board of the SSU and the Committee of Ministers. Although joint approvals are more cumbersome, they are necessary where the one body comprises the primary funders and the other body has to ensure independence and accountability.
- The president of the SSU acts as the responsible accounting officer for the SSU.

Financial Reporting and Auditing

The financial reporting requirements for the SSU ensure accountability and transparency. The following requirements are proposed:

- The President of the SSU must cause financial statements to be prepared.
- The financial statements must be audited by the SADC auditors appointed by the SADC Council, or other independent auditors appointed by the Committee of Ministers.
- The audited financial statements must be approved by the Board and the Committee of Ministers.
- The financial statements must be published with the annual report of the SSU.

APPENDIX A

DATA

DATA

Data for this report were collected from various sources. Main data sources include the World Bank's World Development Indicators (WDI), the IMF's World Economic Outlook (WEO) database, and www.sadcbankers.org. Additional sources include IMF country reports and World Bank Country-at-a-Glance tables. We provide documentation when all the data are not strictly comparable. All of the data used are annual time-series data.

GDP

GDP data are in current billions of US dollars. All GDP figures in this report come from WEO.

CPI INFLATION RATES

CPI inflation represents the percentage change of the CPI indexes of each country for each year. These all come from WEO.

BUDGET DEFICITS

The data used for budget deficit-to-GDP ratios come primarily from SADC, which makes no attempt to exclude official grants to governments. Data from IMF staff country reports, which do exclude grants, were used when available. Inconsistencies may arise when data from both the IMF and other sources have been used because for some countries or years, transfers are not excluded. Table A-1 shows when deficit data were taken from sources other than SADC.

Table A-1. Deficit Data Sources

Country	Years	Data Source
Botswana	1993–1999	Ministry of Finance and Development Planning, and IMF staff estimates.
	2000	IMF Public Information Notice (PIN) No. 01/37, April 13, 2001. This is an IMF estimate.
Angola	1993, 1994	Data from the Angolan Authorities, world bank and UN.
	1995–1999	FISCU 1997 and IMF Staff Country Report, No. 00/111, "Angola: Recent Economic Developments," August 2000.
	2000	IMF Country Report: "Angola-–Staff Monitored Program—Memorandum of Economic and Financial Policies, and Technical Memorandum of Understanding," February 17, 2001.
Tanzania	1993–1999	Bank of Tanzania
	2000	IMF, Tanzania Poverty Reduction Strategy Paper Progress Report 2000/01, August 2001.
Congo, Dem Rep	1995	World Bank (includes grants)
	1996–2000	IMF Country report: Title, No. 01/123, "Democratic Republic of the Congo: Selected Issues and Statistical Appendix," August 2, 2001.
Malawi	1998–2000	IMF Country Report No 01/38, "Malawi: Selected Issues and Statistical Appendix," February 14, 2001.
Zambia	1998–2000	IMF, Poverty Reduction Strategy Paper, March 2002. The 2000 value is an IMF estimate.
Zimbabwe	2000	IMF, Country Report No 01/13, January 2001. This is an IMF projection.
Mozambique	1998–2000	IMF, Country Report No 01/179, Oct 2001.

DEBT

The indicator used to gauge indebtedness comes primarily from the WDI. Table A-2 indicates where alternative sources were used.

Table A-2 Alternative Debt Data Sources

Country	Years	Data Source
Namibia	2000	World Bank ICT at a glance tables. The value used here is the total debt – GDP ratio.
Congo, Dem. Rep.	2000	IMF, Country report Nr 01/123, "Democratic Republic of Congo: Selected Issues and Statistical Appendix," July 2001

CURRENT ACCOUNT DEFICIT

The primary data source is WDI, with additional data taken from alternative sources as indicated in Table A-3.

Table A-3 Alternative External Account Data Sources

Country	Years	Data Source
Botswana	2000	Bank of Botswana. Annual Report, 2001.
Congo, Dem. Rep.	1999–2000	IMF, Country report nr 01/123, "Democratic Republic of Congo: Selected Issues and Statistical Appendix," July 2001. We have calculated the current account–GDP ratios using the parallel market exchange rate as published in the report.
Namibia	2000	SADC
Zambia	1992–2000	SADC
Zimbabwe	1995–2000	SADC

COLLECTED DATA

The following tables contain the basic data collected for SADC countries.

Table A-4. GDP in SADC in 2000 (US$ billion)

Country	GDP	Share in SADC GDP (%)
Angola	8.86	4.87
Botswana	5.03	2.77
Congo, Dem. Rep.	4.48	2.46
Lesotho	0.87	0.48
Malawi	1.67	0.92
Mauritius	4.40	2.42
Mozambique	3.75	2.06
Namibia	3.44	1.89
Seychelles	0.58	0.32
South Africa	128.01	70.40
Swaziland	1.40	0.77
Tanzania	9.03	4.96
Zambia	3.24	1.78
Zimbabwe	7.06	3.88

Source: WEO (2000)

Table A-5. CPI Inflation

	GDP		CPI Inflation			
Country	2000 US$ billion	SADC Share (%)	2000 (%)	SADC Contribution	1990–2000 Average	SADC Contribution
Angola	8.86	4.87	325	15.84	869.74	42.4
Botswana	5.03	2.77	7.9	0.22	10.61	0.3
Congo, Dem. Rep.	4.48	2.46	553.7	13.65	2867.49	70.7
Lesotho	0.87	0.48	6.1	0.03	11.03	0.1
Malawi	1.67	0.92	29.6	0.27	28.95	0.3
Mauritius	4.40	2.42	5.3	0.13	8.06	0.2
Mozambique	3.75	2.06	12.7	0.26	32.60	0.7
Namibia	3.44	1.89	9.3	0.18	10.72	0.2
Seychelles	0.58	0.32	7.6	0.02	2.45	0.0
South Africa	128.01	70.40	5.4	3.80	9.90	7.0
Swaziland	1.40	0.77	9.9	0.08	9.42	0.1
Tanzania	9.03	4.96	6.2	0.31	21.73	1.1
Zambia	3.24	1.78	26.1	0.46	76.58	1.4
Zimbabwe	7.06	3.88	55.9	2.17	29.53	1.1
SADC average				37.42		125.4

Table A-6. Budget Deficit-to-GDP Ratio

	GDP			Budget Deficit (% of GDP)		
Country	2000 US$ billion	SADC Share (%)	2000 (%)	SADC Contribution	1993–2000 Average	SADC Contribution
Angola	8.86	4.87	2.0	0.10	16.16	0.79
Botswana	5.03	2.77	3.4	0.09	–1.70	–0.05
Congo, Dem. Rep.	4.48	2.46	5.7	0.14	5.97	0.15
Lesotho	0.87	0.48	3.2	0.02	4.30	0.02
Malawi	1.67	0.92	11.4	0.10	7.73	0.07
Mauritius	4.40	2.42	6.5	0.16	2.61	0.06
Mozambique	3.75	2.06	15.8	0.33	7.13	0.15
Namibia	3.44	1.89	1.3	0.02	0.09	0.00
Seychelles	0.58	0.32	9.9	0.03	9.74	0.03
South Africa	128.01	70.40	2.17	1.53	4.15	2.92
Swaziland	1.40	0.77	1.7	0.01	–0.99	–0.01
Tanzania	9.03	4.96	4.8	0.24	1.87	0.09
Zambia	3.24	1.78	8.1	0.14	5.14	0.09
Zimbabwe	7.06	3.88	22.8	0.89	8.40	0.33
SADC average				3.80		4.65

Table A-7. Present Value of Debt (as % of GNI)

	GDP		Present Value of Debt	
Country	**2000 US$ bn**	**SADC Share**	**2000 (%)**	**SADC Contribution**
Angola	8.86	4.87	203.22	9.91
Botswana	5.03	2.77	6.42	0.18
Congo, Dem. Rep.	4.48	2.46	265.00	6.53
Lesotho	0.87	0.48	44.97	0.22
Malawi	1.67	0.92	89.58	0.82
Mauritius	4.40	2.42	54.23	1.31
Mozambique	3.75	2.06	32.40	0.67
Namibia	3.44	1.89	4.90	0.09
Seychelles	0.58	0.32	26.58	0.08
South Africa	128.01	70.40	19.38	13.64
Swaziland	1.40	0.77	14.38	0.11
Tanzania	9.03	4.96	49.94	2.48
Zambia	3.24	1.78	179.23	3.19
Zimbabwe	7.06	3.88	50.39	1.96
SADC Average				41.19

Table A-8. Current Account Balance

	GDP			Current Account Balance (% of GDP)		
Country	2000 US$ billion	SADC Share (%)	2000 (%)	SADC Contribution	1990–2000 Average	SADC Contribution
Angola	8.86	4.87	–0.05	0.00	–6.44	–0.31
Botswana	5.03	2.77	9.50	0.26	7.33	0.20
Congo, Dem. Rep.	4.48	2.46	–1.30	–0.03	–7.58	–0.19
Lesotho	0.87	0.48	–16.85	–0.08	–11.05	–0.05
Malawi	1.67	0.92	–30.84	–0.28	–23.53	–0.22
Mauritius	4.40	2.42	–0.76	–0.02	–1.85	–0.04
Mozambique	3.75	2.06	–20.34	–0.42	–17.36	–0.36
Namibia	3.44	1.89	7.40	0.14	3.81	0.07
Seychelles	0.58	0.32	–9.74	–0.03	–8.81	–0.03
South Africa	128.01	70.40	–0.37	–0.26	–0.02	–0.01
Swaziland	1.40	0.77	–2.71	–0.02	–1.09	–0.01
Tanzania	9.03	4.96	–3.31	–0.16	–11.14	–0.55
Zambia	3.24	1.78	–16.80	–0.30	–8.68	–0.15
Zimbabwe	7.06	3.88	–1.90	–0.07	–4.23	–0.16
SADC Average				–1.28		–1.82

APPENDIX B

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